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THE CULTIVATOR

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LETTERS FROM MR. HORSFORD.—No. IX.

FELLENBERG SCHOOL AT HOFWYL.

Giessen, Oct. 17th, 1835.

MR. TUCKER—I have just returned from an excursion in Southern Germany, Switzerland, and Sardinia.

My course lay along the valley of the Rhine through the Grand Duchy of Baden to Freiburg; thence across the Black Forest to Schaffhausen, where the waters of the Rhine pour over a ledge of rocks, furnishing the largest water-fall in Europe—thence to Zurich, where Pestolozzi was born; thence by Koppel, where Zuingli, the companion of the reformers fought and fell,—and through Zug and Goldau, upon the Riga,—an isolated mountain peak of six thousand feet, commanding a magnificent view of the Alps, in the distance, on one side, and the Jura on the other, with all the lakes and richly cultivated lands between; thence to Lucerne, the theatre of the recent ill-starred revolution; thence along the Vierwaldstaeder lake, through the scenes of Tell's history, to Altorf; thence along the St. Gothard's road to the Italian summit; thence, by foot-paths, through snow, and over the glaciers, to the sources of the Aar, where Agassiz, Desor, and their associates have for ten years been recording the history of that river of ice, the Aar glacier; thence through all the remarkable passes of the Bernese Alps to Interlacken; thence over the Gemmi to the valley of the Rhone, and along the Simplon road to Martigny, where Longfellow's Excelsior sets out; thence over the Col de Balme, to Chamouni, from which rises Mont Blanc; thence to Geneva; thence through French Switzerland, by Lausanne, Fribourg, Berne, Hofwyl, Solothurn, Aurau, Zurich again, St. Gallan to Constance, where Huss was burned; thence over Schaffhausen, through the Black forest, crossing the sources of the Danube to Stutgart, the capital of Wurtemburg; thence, after visiting Hohenheim, [as described in the letter published in our last—ED.] near Stutgart, over Heilbroom, down the Necker to Heidelberg, and along the Bergstrassa to Darmstadt, Frankfort and Giessen—in all a tour of nearly fifteen hundred miles.

After this enumeration of the principal points visited in my tour, I need scarcely add that opportunity has been presented me for learning much of agriculture and affiliated pursuits, in greatly diversified situations, soils, and climate. Some of the observations I have been enabled to make, may perhaps be worth, hereafter, sharing with your readers.

The most prominent objects of my tour, however, were the institutions for education in Southern Germany and Switzerland. Of these I visited eleven, eight of which were more or less schools for instruction in the science and practice of agriculture. In all of them, the announcement that I was an American, and the object of my wishes, secured me the kindest reception and the most generous co-operation. Two or three days were devoted to each of several of them, in learning their systems and distinguishing peculiarities. Of what I saw and heard, I have taken somewhat ample notes, and begging for them the consideration they deserve from having necessarily been written in great haste, I will give you a copy of my notes at Hofwyl; prefacing them with a brief notice of M. Fellenberg, and the origin of his school.

Emanuel von Fellenberg was descended from one of the oldest families of the nobility of Switzerland. Early dissatisfied with political life, he became a pupil of Pestolozzi. Inspired with the ideas of that great man, he resolved to devote his life and fortune to their development. Superior to his master in the refinements of life and in wealth, he was scarcely second to him in zeal and firmness of purpose.

He consumed ten years in visiting schools and otherwise fitting himself for the execution of his plans. Having sought through Switzerland a location uniting all the essentials to his conception of a site for a school, he fixed upon Hofwyl, an estate in Canton Berne, about five miles from the capital. It is a large irregular mound, embracing about two hundred acres. In the distance, on the east, are the Bernese Alps. On the west is the Jura chain. Lesser elevations, between, crowned with forests of different ages, meadows rich in verdure, grain fields, and cottages embosomed in shade trees, greet the eye on every side as one looks out from the grounds upon which the group of buildings is situated.

The school was commenced with poor children, whose education not only, but whose food and clothing were provided. I cannot follow the history in its detail, showing how unwilling for a long time the humbler classes were to receive education as a gift—how from these little beginnings the institution has gone forward, till it now numbers some twenty-five professors and teachers, with pupils from every quarter of Europe—how M. Fellenberg was condemned for his enthusiasm—how his holy purpose to temper the keenness, and lessen the pressure of want, stood, like the granite peaks in his land,—all unchanged, amid the shock of elements around—and how, full of years and of happiness, he has just closed his mission.

I must turn to my notes. There were three schools founded by M. Fellenberg—two at Hofwyl, and a third at Kutti, another estate near. The latter is the school for agriculture. The higher school at Hofwyl, receives pupils from the more wealthy families, of whom there are about forty from England—the lower is for the poor. The courses of instruction are totally different.

The English Professor was kind enough to presen-

my name and mention my wishes to M. F. early in the morning after my arrival.

Sept. 29, at ten o'clock, I announced myself at M. F.'s office. He begged to be excused for a few moments that he might complete a letter in progress. I walked up and down a little park or play-ground, looking out upon the grounds of the estate, and enjoying the dress now gradually being taken on by the forests—the yellow and red, with all intermediate shades between them and green in such harmony and depth of coloring.

Connected with the school are eight or ten buildings, all of them large, conrtructed in a kind of Swiss style. The roofs are pointed and projecting, and from two of these, towers or spires run up, giving a singular and not unpleasant expression to the whole. Northward, at the distance of half a mile, and some fifty feet lower, are two small lakes. Beyond, on the right, a high range of wood-land, dotted with farm-houses, orchards, groves, and in all directions, grass and grain fields, showing a soil of thorough cultivation, and a high degree of fertility.

At the close of a half-hour M. F. joined me. He is about five feet eleven in height, large and fleshy. His eyes and complexion dark—his forehead far encroached upon by the hair from above. The features are rather heavy, though the countenance beams with earnestness, benevolence, and intelligence. His movements are rapid —in a word, his bearing throughout, is that of a thorough-bred gentleman, upon a ground-work of well-balanced mind and christian principle.

He had been made acquainted with my purposes by the English acquaintance of last evening, and took me, without proposition, at once away upon a walk of a mile and three quarters, to the Agricultural school. On our way, he occupied my time with the subject of education, his father's peculiarities, Pestolozzi's great ideas, and all matters relating thereto, in a style of great clearness and simplicity, and with all the sincerity of expression that might be expected from an honest man, who knew the truth of what he was stating, and felt its importance. He does not pursue precisely the course of his father in instruction, because, he says,—"I have not precisely the same constitution of mind; yet I arrive at the same result, tho' following another plan."

At length we came upon the farm-grounds, in the midst of which are erected two enormous stone edifices; one appropriated to the purposes of a barn, and consisting of mows, granaries, stalls for cattle, horses, swine, &c., and the other a boarding-house or farm-house with study-rooms, work-shops, store-rooms, and apartments for all purposes that could be connected with the domestic economy of the farm. Before us were the young men from sixteen to eighteen years of age, digging potatoes. They numbered eleven,—three of the whole number were absent, or employed upon other duty. Many of them were bare-headed, and all of them in the peasant's *kittel*, (blue over-frock,) The potatoes were assorted as dug—the lesser from the larger, and the sound from the decaying. The little crop had been planted, hoed, and now harvested, throughout, by the scholars. In these labors, and in all the others of the farm, carried forward almost exclusively by the pupils there is no play-work. M. F. intends they shall have a deep-seated conviction of what perspiration and fatigue are, and of how much ought to be expected from a day-laborer. Leaving them, we went to the meadow where they had been mowing—and to the garden where each had a little sub-division for himself, devoted to growing what he pleased. The larger kitchen garden was appropriated to cabbages, cauliflower, beets, turneps, &c.

The barn being situated upon an inclination, was entered by wagons upon a bridge above, and the hay and grain discharged with little labor into the mows and bays below. On the first floor were the stalls; one series for calves, (fine-looking creatures,) another or two others for cows,—all spotted, well-bred cattle, not large, but finely formed, in good condition, sleek, and good milkers—another series for swine, in which I recognized some Berkshires. The stalls were paved with small cobble-stones, and so inclined that the urine could be conducted to a reservoir without. Each cow was secured before a little trough and rack above, by a chain. No partitions of any description between them. On the same floor were broad apartments, for threshing, drying potatoes and beets, beside all the usual conveniences of a stock and grain barn.

In the cellar which extends under a large portion of the barn, I was shown a quantity of potatoes, some two thousand bushels I should judge, which were all threatened with destruction from the almost every where prevailing potato sickness. All were ordered to be taken up again and dried. At my suggestion we took some specimens of the diseased roots to be examined with the microscope; but its power was too feeble to reveal anything satisfactory. The theories of this fearful malady, seem none of them suited to all the facts of the case. It has fallen upon the plant in dry soils and wet—and in other soils equally dry and wet it has not appeared. It has occurred in the shade, and again has left such a location unvisited. Soils highly manured have escaped, and have not escaped. It is not in Switzerland alone, nor in Germany—but in France and Austria, and England, and in America. Not this year only, but in previous years. To particular soils, degrees of moisture, exposure to sun, peculiar situations, or presence of unusual quantities of manure—to each and all it cannot be attributed. But I have almost forgotten Kutti and the farm-school.

From the barn we went to a room in the farm-house, where the register is kept. This apartment is furnished with a double row of inclined desks, back to back—all in a single frame-work, a few chairs, some shelves, and a board for some forty keys. Here the scholars write in their day-books all that has been accomplished, and all they have learned during the day, between 7 and 9 o'clock in the evening. M. F. showed me the day-book, journal, and inventory of the farm. The detail seemed almost immeasurable, but the system is so perfect that there is nothing like confusion in any of the accounts, or like difficulty in learning from them the exact condition of outlay and income. The milk-book, for example, had a record of all the cows' names, their ages, the amount and what kinds of food they eat, and the average amount of milk given daily, determined by admeasurement at the close of each month; the amount sold, the amount fed to calves, the butter and cheese made, amount consumed, and quantity sold, &c. The day-book contained a record of each day's work, with what, and by whom. The other books, and there were several, were not less interesting, or the system of record less perfect. All purchases, outlays, productions, and losses, were displayed in the inventory sheet, and the absolute condition of the establishment shown by the balancing.

After inspecting these things we went to dine. A spacious hall with high ceilings, lighted on three sides, contains a table, chair, and a sliding cupboard, communicating with the kitchen below. Instead of a single cupboard carried up by cords and weights, this is double, one ascending and the other descending, the movement being effected by a cog wheel revolving in a chain connected at the extremes with the cupboards. A simple sentence of prayer for blessing upon the repast, and we were seated, M. F. at the head. The young gentlemen served the soup, rich boiled beef, cabbage, potatoes and bread, which constituted the whole dinner. At its close there was half an hour of relaxation; then all the young gentlemen assembled in the drawing-room to receive an hour's instruction from their noble teacher. They were seated about two long tables, with their note-books, and in the apparel in which the potatoes had been dug.

It seems that the little republic of pupils had by an election of their own, appointed individuals of their number to the charge of each particular department of the matters to be cared for about the farm. One to the cow stables, one to the working cattle, another to the swine, another to the horses, another to the fruit, another to the rooms of study—the sleeping apartments—each a specific trust. One was elected to be leader in all kinds of work. Each had been required to draw up

a scheme for conducting his own department of supervision. These schemes were successively called for, read and discussed; and here it was, I felt the real greatness of M. F. He elicited the warm but honest discussion of all the little points to be considered in these schemes, and found means to introduce a plain, easily to be comprehended, but deep and sound lecture upon the political economy, if I may so call it, of an agricultural community.

The first scheme was that of the leader in all work. It was well drawn up for a lad. Each article was read and discussed, or assented to without inquiry, as it seemed to impress the infant council. One topic I recollect particularly. "Should each member of a party engaged in the same labor, judge of the excellence of the mode employed? and should he express his judgment? and if so, before the work was commenced, while going forward, or when concluded?" At first there was a little reserve; then came a variety of opinions. All thought that each should exercise his faculties to discover the best mode. Some thought that if a different mode would be better it should be made known before the work was commenced, as after its conclusion the discovery would be of little service. Others, again, that after its commencement, one would be better able to judge of the relative excellence of the employed and proposed plans, and that the time for expressing an opinion would be in the progress of the labor. Others still had different views, all of which showed that they have learned to *think*. The various opinions gave M. F. an opportunity to present the prominent features of a republican government—the necessity of obedience to some head, and confidence therein—the duty of investigation, and the proper time, as men and as gentlemen, for the expression of differing opinions when deliberately formed. His extempore alternate inquiry, reply, and dissertation, was one of the finest exhibitions of what a teacher may attain, I have ever known.

Each officer in the republic holds his place fourteen days, and each has the strong stimulus of M. Fellenberg's approbation, of personal review, and of the consciousness that he will be succeeded by one whose highest wish will be to excel his predecessor, to make him perform his service faithfully.

At the close of this exercise, which continued about an hour and a half, a storm had set in, and the labor out of doors could not be resumed. The study was continued. A book of agricultural problems was taken down, and several estimates for the consumption of fodder, fattening of cattle, &c., made. At length a problem to determine the number of cows they should be able to winter, feeding them so many pounds of roots, so much hay, and so much clover, per day. Last of all, how much land they would be obliged to devote for the whole coming year, in order to the requisite supply of grass, hay, potatoes, beets, &c., necessary to the *maintenance* of the stock, i. e., keeping in their present flesh, and how much more to furnish them with all they can eat—allowing each cow to weigh eight hundred pounds, so much hay, clover, and roots being given, according to established data, and so much produce from an acre—being taken as the result of experiment. All went to work, and in about fifteen minutes the problem was solved. M. F. was with them, seeing that the operations were correctly performed, and taking all measurable interest in their work. There was certainly nothing very profound in the question as a mathematical task, but it was eminently practical, and has moreover one of the essentials to progress and success in agriculture, viz., *quantity*.

The rain continuing, the whole party went to another room, and remained two hours in cutting and coring apples to be dried. During this time, I visited the sleeping rooms where each has a bed for himself—as is the case every where, so far as I have observed, on the continent—the room for drying seeds, the workshops, and a variety of other rooms, and finally terminating in the apartment where all the scholars, with M. F., were seated on benches, working at the apples. He had employed the time in such conversation as was adapted to fit them for the duties of men, discussing the little points of what I have called political economy of agriculture, for want of a better name. For this he is eminently fitted, for, as one of the early poets says of his hero, "he has seen much of cities and of men." In a few moments we left.

While awaiting the solution of the fodder problem, I copied the following study plan for the summer term:

5—6, breakfast; 6—11, work; 11—12, study, (chemistry, mathematics, botany, and book-keeping alternating with each other;) 12—1, dinner; 1—2, free hour, drawing, &c.; 2—5, work; 5—6, chars; 6—7, supper; 7—8, singing and garden work, alternately; 8—9, writing out notes and day-book; 9 gathering in assembly-room, and retiring.

Sunday—5—6, breakfast; 6—10, free-time; drawing, sketching, and models; 10—1, church at Hofwyl; 2—6, excursion visit to peasant farmers, recreation.

The whole labor, and each and every kind of labor, is gone through with by the scholars. M. F. quoted Napoleon's maxim—that every soldier had a marechal's commission in his pocket. So, I suppose, as they needed but the necessary experience and effort to win the epaulettes and command, each one of the pupils may attain to the most profitable farm direction, if he comes through the course of plowing, hoeing, harvesting, and all the toil of his calling to this position.

The grounds are plowed, the seed sown and harrowed in, the harvest gathered, and threshed with their own hands. Their day-books show how much horse-labor, man-labor, seed, and manure, have been given to each crop. They also show how much grain has been harvested, and sold, and a rainy day will enable them, yet to bring the several quantities in the relations of investment, income, and profit or loss.

The milking of the cow is performed by the scholars in succession, each serving fourteen days. All the charge of the stock is entirely given up to them, and M. F. assured me there is awakened that regard for the domestic animals which is so essential to their good preservation, and which, while it makes the scholars feel that they are confided in, relieves the day-laborer from an important responsibility. There is indeed on this beautiful and highly cultivated farm of more than two hundred acres, only a director, and at times a few day-laborers, the labor being nearly all performed by the pupils.

The agricultural employment—in other words, the labor—is made delightful, partly, I think, by there being just enough of it, but chiefly by the botany, physics, chemistry, mathematics, and drawing, with which it is all made in a measure scientific.

On our return, M. F. expressed his intention to teach, or have so much of chemistry taught, as would enable his pupils to analyze soils, manures, and ashes. This he will have done in winter, when the number of study hours will, in proportion, be greatly increased, and when all the pupils will return to Hofwyl. He would have them, hereafter, occupy the leisure of their winters with little laboratory investigations. He seems to think the result not of difficult attainment.

Parting with my noble acquaintance, at the higher school-house, I received two volumes on Agricultural Education, one by himself, directed to the Landswirthschaftverein of Prussia, and the other by a pupil of his father, now at the head, M. F. assures me, of the best school of this kind in his acquaintance, situated in canton Appenzill. I gave him three numbers of the Cultivator, and we parted to meet to-morrow morning.

NOTE.—The succeeding day was given to studying the school for the poor children, and to learning something of the farm and its management. Persuaded as I am that a plain account of what I there saw and heard, will be not without its interest, I will, after translating a portion of the prospectus for the Kutti school, resume my notes.

Prospectus of the Farm School upon the Fellenberg estate, Kutti, near Hofwyl.

A—INSTRUCTION.

Practice is the principal object. It is divided into

1. *Field-work*: The pupils will execute farm-work. Beside this, they will have as lighter work, the forest culture, and designing, and ornamenting pleasure grounds.

As soon, and as much as possible, the leader of all work will be chosen from the pupils by their own number.

2. *Employment in house, yard, stall, barn, granary, dairy,* and *cellar.* Each pupil will have for a certain period, a particular charge allotted to him.

3. In similar manner the work of the forest culture will be arranged.

4. Constant communication from the teacher, based upon what is daily seen and done, will constitute the chief instruction to the pupils, and furnish occasion for introducing the theory and auxiliary sciences.

5. A complete system of book-keeping, including single and double entry is required from every pupil. For this purpose, they, under the direction of a teacher, will keep a day-book, journal, and ledger, accompanied throughout with calculation.

The theory of Agriculture, and most of the auxiliary sciences will be systematically taught in the winter.

Exercises in devotion, partly entrusted to the clergymen of the different confessions at Hofwyl, will be sustained throughout the entire year.

The auxiliary sciences which will be taught, are

1. *Natural Sciences.*

a. Economical mineralogy, botany, and zoology. farriery and horse-shoeing will connect themselves with the latter.

b. Physics (natural philosophy,) and chemistry, united as chemical philosophy, with particular reference to meteorology, agronomy, and technical chemistry.

2. Mathematics.

a. Calculation connected with agriculture.

b. Surveying and levelling.

3. Machine drawing—plan and perspective.

4. Agricultural architecture.

c. Mechanics applied to agriculture.

5. Economical commercial arts—(the art rightly to speculute.)

6. Instruction in singing. In music, to such as are especially qualified.

7. Aid in reading, writing, &c.

For the development of the body, in every relation care will be given.

It will consist theoretically in instruction in what

a. Health consists, and in its preservation.

Practically,

b. Agricultural and and economical manufacture work of every kind.

c. Exercise with foils.

The aid which the Institution offer, beside the cultivable grounds, in woodlands, peat-bogs, work-shops, (particularly wagon and smith shops,) brick-kilns, the nearness of Hofwyl, and of larger and lesser peasant farms, furnishing great facilities for observation; the chemical laboratory, the apparatus in physics, the collections in natural history, the rich Flora of the vicinity, the nursery, the fields for experiment, the technical manufactory, &c., are well adapted to afford to the instruction strong support.

The instruction is so divided that in winter more attention will be given to theory, and in summer, more to practice. Still an entire separation of the one from the other is impossible.

In summer those auxiliary sciences will be pursued which permit excursions—*e. g.*, botany, surveying and levelling.

B.

The uniform suit, consisting of a *kittel,* (blue frock and belt,) and cap, will be furnished.

C.

The pupils should be confirmed, and be sixteen years of age. He must have the usual knowledge of reading, writing, and arithmetic, be of good moral character, without organic defect, and in the possession of souud health.

D.

The period for the complete course in agriculture and the auxiliary sciences, is fixed at three years. (This will not prevent pupils being taken for a less period.) Admission will be best in spring, because the practical employment of the summer will be the best introduction to the study of the theory in winter. Pupils will notwithstanding be received in autumn.

	Charge for Swiss.	For Germans.	For all other foreigners.
First year,	$212	$240	$336
Second "	106	160	224

For the third year nothing will be taken in return. But on the coutrary, from the second forward, the labor according to the current price, will be paid.

Beside this, in the first year, pupils will receive premiums for industry, with which, also, neatness and bearing will be especially taken into consideration.

Each year a thorough and complete examination in relation to both theory and practice, will taken place, which will be made known through the public papers.

BROTHERS VON FELLENBERG.

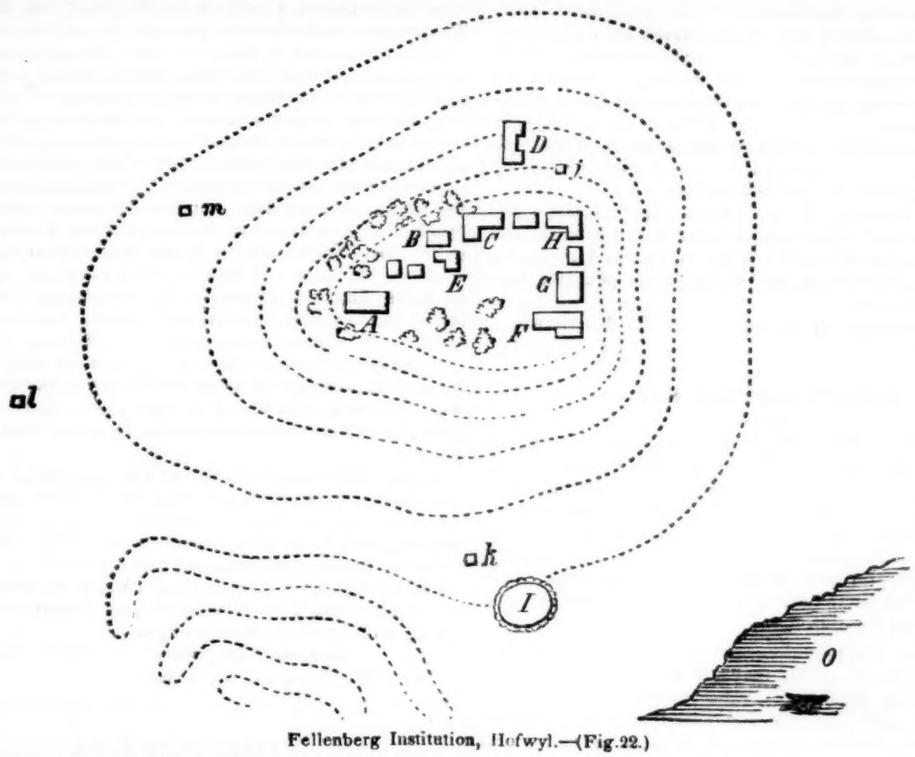
Oct. 1.—At ten o'clock I found M. Fellenberg in his office, ready to further my wishes. The apartment, like all the others of thé edifice, is high. Surmounting the earthen stove and a few other indifferent pedestals, were busts of great men. Among them, gifted with the insignia of genius and philanthropy, in a degree altogether superior, was the bust of the father Fellenberg. Around the wall were portraits of varied character—landscapes, scenes illustrative of Swiss domestic life, &c. Upon tables and shelves were vast numbers of pamphlets, books, plans of different kinds, and general office paraphernalia. At the end of a sofa was the correspondence of the last day or two. No sooner was I seated, than my host, true to a knowledge of my wish and object, resumed the explanation of the peculiarities of these schools.

Least in rank among them is the school for training day-laborers, in the field. The pupils are from the poor families in the vicinity, and I think from those of day-laborers. Their parents are not land-owners—they rent from a peasant a house and garden, and work for the landlord in payment. The children in many instances seem born to poverty. This debt to the state M. F. would prevent, by qualifying the sons to earn more than their fathers earned before them, and fitting them to be more or less useful citizens. Pestalozzi's grand conception was, that *labor which seems ordinarily only for the development of the body, and its maintainance in health, may be made the medium of mental and moral training.* This idea lies at the foundation of thirty schools for the poor, now sustained by benevolent associations in different parts of Switzerland. They are educated free of cost not only, but supplied with everything except clothes, and I think even these, are in part the gift of their noble father.

After listening to M. F.'s account of their arrangement, we walked out to look through the several estab. lishments at Hofwyl. First we passed a carpenter's shop, where some work was going forward apparently connected with the school edifices. Then we came to the school and boarding-house for the poor boys. In one room, two were preparing potatoes for themselves and their fellows. In another, six or seven really wretched-looking children were assorting peas, while another, older, had a book, which I fancied he had been reading to his companions. It was exceedingly grateful to observe the friendly address of M. F. to these little fellows, some of whom seem scarcely worth the time and effort necessary to a tolerable education. But there is "not a sparrow falleth," &c. The study-room was large, supplied with benches, tables, and a black board. The sleeping-room had for each a little bed.

The lads are employed during the day with hoeing, digging, gathering, assorting, and other farm-labor, under the constant supervision of a teacher. The cabbages, potatoes, beets, turneps, and the products of the boys' labor, are sold, and bread is purchased with the proceeds. How much time they devote daily to study I did not learn. Just uow the gathering of the fall crops must necessarily consume nearly the whole time, but in winter, I presume, five or six hours. They are taught to make mats, baskets, and a variety of other articles in household use.

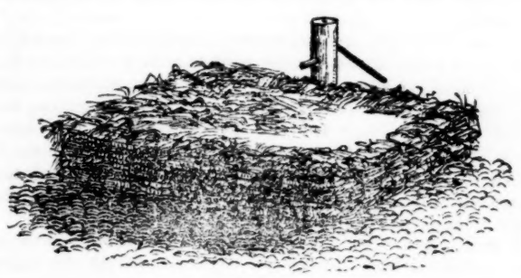
In carrying out this plan for educating poor children gratis, the conservative world about, regarded M. F. as enthusiastic almost to insanity, and thus for a long time withheld their co-operation. It was something their fathers had not done! Switzerland is not peculiar



Fellenberg Institution, Hofwyl.—(Fig.22.)

in this reverence for antiquity. There are other places and communities, where modes are, necessarily, the best, because hallowed with the confidence of centuries. Enthusiasm, except in whale-fishery and war, is a dangerous element in the human constitution—especially so in science and religion. It was evidently added by mistake.

Continuing our way, we entered the cow-stables. Here were about eighty—as fine a collection taken together, as I have seen on the continent—all pied, all in milk—standing upon a floor of cobble-stone, overspread with straw. One among them of great excellence, was worth, M. F. said, about ninety dollars. She seemed capable of giving a large supply of milk—was rather an Ayrshire in proportion, though nearly as large as a Hereford. The manure is easily gathered by folding the litter and excrements within the straw bed of each day and depositing this upon the pile without, (fig. 21.) Here it remains till thoroughly rotted. Tho'



(Fig. 21.)

by being kept continually wet, it is not permitted to ferment. Most of the cows suffer from the unnatural growth of the hoof. M. F. attributes it to the action of saltpetre formed in the soil below. Need it be any thing more than the legitimate result of this unnatural quiet of the limbs? The growth of the beard when neglected, or of the finger-nails of the Fakeers of Hindostan, (till the latter as little resemble the usual product of healthy secretion, as they do the talons of birds of prey,) are but parallel instances, in which the constant deposit of horny matter is not kept down by the accustomed removal or abrasion at the outer extreme. These creatures are worked when their labor is required, two or three hours in the day. M. F. says it enables them to give more milk, because they eat more. They must be exercised, says he, in order to their general health. Better that the service be profitable, is ever the peasant's plainest deduction.

Passing from the stalls, by the wagon and smith shops, we came upon the system of draining the father of M. F. had instituted. He has enveloped the mound upon which the farm lies, in a spiral drain, discharging its water two-thirds of the distance to its base, in a swimming pond. From this pond it issues again to water a meadow, lying upon descending ground. It is impossible to give in a diagram the just properties of the ground-plot of Hofwyl. Still the several points may be noted. (Fig. 22.) A, higher school, about 130 by 50 feet. B, the lower farm-school for poor children. C, gymnasium for sports, when the weather is unpleasant. D, a lodging and boarding-house, for the reception of patrons and others visiting the school. E, chapel. F, wagon and smith-shops. G and H, barns. I, swimming-pond, floored and walled with cut stone. j, k, l, m, commodes, about the farm. O, one of the small lakes, supplied with row-boats for the pupils and teachers.

At eleven, we returned to the gymnasium, to witness the sports of the pupils, under the direction of their master, the Professor of Mathematics. Their exercises were running, leaping, climbing, and swinging in a great variety of modes, on parallel bars. Each little group under a director who stood ready to give aid in a dangerous feat. The elder boys chose their leader, as they elect leaders in all sports, and he set them examples which they tried to follow. There was one Swiss among the number, a fine representative of the peasants who to this day, among the mountains, have their public festivals at which prizes are won in heaving the stone and pitching the bar. His strength and agility were the admiration of all. Here I remained in conversation with M. F. and the Math. Prof. an hour, when, at a bell-stroke, all the fixtures were abandoned, the pupils leaving to prepare for dinner. These gymnastic exercises are the escape-pipe, through which the surplus animal spirits make their exit, instead of festering in the organism, and imparting their conagiont to the mind, and ultimately finding an expression in the rod, or a dismissal.

It was impossible not to observe the great superiority in bearing of the some forty Englishmen over their fellows generally, from Switzerland and Germany. M. F. says they have more energy, but so high a regard for the practical—that which they can *see* to be useful—and so little, comparatively, for science or knowledge for its own sake, that though in the outset they lead the way in study, they are almost invariably outstripped by their patient, persevering companions.

On parting with M. F., he put into my hands a variety of papers, including prospectuses of the school, and plans of study, from which I shall be enabled to learn, when more at leisure, more minutely the peculiar features of this school.

Respectfully yours, E. N. HORSFORD.

SARATOGA COUNTY, N. Y.

MR. TUCKER—Believing that Saratoga county, as an agricultural and manufacturing district, is but little known abroad, I thought a brief sketch of ourselves might not be uninteresting to you and some of your readers. The traveller, in going to and from Saratoga Springs, by our railroads, passes over our most barren and sterile fields; hence often comes to the conclusion that there is but little here worth possessing except our "health giving fountains."

But great is the mistake. At a little distance, on either side of those roads, may be found a soil seldom surpassed, with barns and granaries as capacious and well filled as elsewhere in the Empire state. Ours is the great pork-making county, it being well understood that in this we surpass in quantity and quality our neighbors; and in the dairy, we are vain enough to believe we shall soon rival our own Orange county in butter.

The soil is much of it a sandy loam, congenial to the growth of corn and rye, though wheat and the other grains are grown in considerable plenty. For each and every product we have the best of markets, and these steadily and constantly increasing. Saratoga Springs, for three months in summer, consumes every beef, pig, lamb, chicken, egg, &c., within her reach, and these too, at prices, many times, better than could be obtained in New-York.

Congress water has a remarkable effect in improving the appetite, and whilst the drinking is enormons, there seems to be a corresponding ratio of increase with the eating propensities.

Our numerous streams are being covered with manufactories. On the Kayadarosseras, near Ballston Spa, a Lowell in machinery is springing up. Four cotton mills are now in operation, a fifth one of 150 looms, is preparing, and several others contemplated. Beside these, are woolen mills, flour mills, and other smaller works, too numerous to mention here. The Ballston works of Isaiah Blood, Esq., are in this neighborhood. They are a most splendid and interesting monument of what indomitable perseverance may do when combined with Yankee mechanical skill. These works turn out, in the scythe department alone, six thousand dozen per annum, and to those who have used them it is hardly necessary to say, "there's none better, if as good." Had I time and space, I should like to go more into detail with regard to this establishment, but I must go on, and say to those wishing further information, go, see for yourselves, it will richly repay you.

Farther up the Kayadarosseras, are Factoryville, Lindley's Mills, Rock-city, Jamesville, &c., with their woolen, paper, flour, saw, and other mills. At Rock-city is a fall of 150 feet in a mile. Some excellent water privileges may yet be secured here at low rates.

This Kayadarosseras is a beautiful stream, and were it not for its unrhymable name, its charms would long since have been sung through the length and breadth of our land.

At Fort Edward, a company have purchased the state dam on the Hudson river, and are preparing for extensive operations another year. At Schuylerville, Mr. Marshall, the celebrated manufacturer, has made an extensive purchase, which is to be improved forthwith. Then there is Mechanicville, and Waterford, with their wheels and looms in daily motion. In the north part of our county, beds of iron ore abound, which are already opened and being smelted, whilst extensive glass works are in a state of preparation. Thus, it must be seen at once that we are in the ascendant, and that with a dense manufacturing population, we shall consume at good prices the surplus of our farms. Should a foreign market be needed, we have our two railroads from Ballston Spa to carry us direct to Boston or New-York, whilst a third, (the Whitehall,) will another season connect us with the Canadas. A fourth, from Saratoga Springs to Sacketts Harbor, through the Sacandaga and Black River vallies, is proposed, and laterals and branches in various directions contemplated. Lands, in consequence of all this, are advancing, though still decidedly below the average of other places with like advantages. Few places can be found at this time offering greater inducements to actual settlers in farming than Saratoga county.

Many of the northern towns are admirably suited for the dairy, whilst the lands may be had for prices even less than the worn out tobacco farms of Virginia, so eagerly sought after by some of our northern farmers. Fearing I shall tire you and your readers, I will now close by saying if you or they shall wish to know more respecting us, I will answer any interrogatories on being addressed at Ballston Spa.

Respectfully yours, SETH WHALEN.

West Milton, Jan. 15, 1846.

ANALYSIS OF SOILS.

Mr. TUCKER—It is very important in the present age of agricultural science, that farmers should be thoroughly informed of the different constituents of their lands, in order that they may apply their manures in such a way as to produce the greatest and most practical results. It is true that many, by a careful and systematic rotation, so manage that while one crop exhausts a certain portion of the soil, a succeeding crop will restore it again, and render it fit for another change, and in four or five years it is sufficiently restored for another rotation. Yet in all this, what does he know of the constituent elements of the soil? About as much as he does of the moon.

According to Liebig, the stalks and leaves of plants require for their development and growth, a rich supply of alkaline carbonates and sulphates, while on the other hand, the seed requires alkaline phosphates. A soil containing a small quantity of alkali, may be fertile for grain, but for potatoes, turneps, &c., an abundance is needed.

These remarks are suggested, hoping that the editor will give a few hints, which will enable a practical farmer to analyze some of his different soils, and ascertain, if possible, what particular elements it contains, and what are necessary for the production of any crop. This seems to be the great desideratum—for men to know of what their soils consist, and what kind of manures should be applied, to produce the greatest and most beneficial results.

I would also solicit some information in regard to the best means of reclaiming an orchard, which for many years has been unfruitful. It is situated on a rather wet, but hilly soil, with a southern exposure, and, with one exception, has been pastured about twenty years.

H. LUTHER.

Middlebury, Vt., Dec. 20, 1845.

1. It is indeed true, that it is desirable for farmers to know of what their soils consist, and what kind of manures should be applied, to produce the greatest and most beneficial results.

But this can be attained only partially by analysis. A distinguished chemist informs us that to detect an ingredient in the soil constituting only one thousandth part of its weight, requires as great analytical skill as chemists usually attain. But there are many very powerfully active substances in the soil, constituting a much less

proportion; hence we cannot avoid the conclusion that there are some important ingredients beyond the power of analysis to detect.

One or two examples may be given. A bushel of gypsum has often doubled the clover crop on land, as frequent observations have proved. But, a bushel of gypsum, dissolved and distributed through the soil as it usually is by the first rain which falls upon it, and by which it is rendered accessible to the roots of growing plants—constitutes only the ten thousandth part of the soil of an acre at the usual depth. Even one tenth of that quantity, or the hundred thousandth part, would doubtless in many cases exert very visible effects. Hence we may safely infer that there are such substances now actually as component parts of soils, which are far beyond the reach of analysis.

A hundred pounds of guano on an acre will sometimes produce important results. But a hundred pounds in the soil would only constitute a ten thousandth part. Guano consists of many different substances, some of which would be in exceedingly less proportions. To detect the presence of an equal quantity of those substances naturally in the soil is therefore quite out of the question.

There are however, some substances existing in much larger proportions, whose presence and quantity, may be well ascertained. For instance, it is often important to know the quantity of sand in a soil,—common terms of description being very indefinite,—which may be ascertained with tolerable precision by mixing with water, allowing the sand to settle, drying well and weighing. The proportion of clay may be nearly ascertained by the same way, the clay remaining in suspension for several hours, settling and drying in the same way. Carbonate of lime may be detected by effervescence in acids. Mould, though chiefly indicated by color, may be determined with somewhat of accuracy by burning, the lost weight indicating the quantity; though this cannot always be accurate, as for instance, if carbonate of lime be present, the carbonic acid would be driven off, which would also lessen the weight.

But we very much question the propriety of farmers undertaking to analyze soils. If imperfectly done, it is of little value or might mislead; and to be well done, requires an excellent apparatus, costing some money, and a great deal of time, which the farmer cannot well devote; and a considerable previous knowledge and experience, in order to attain skill. It is better to send the soil to an eminent chemist, and pay him for the job; although even then there are doubtless many very important ingredients he cannot detect, as already shown. For ordinary practice, common observation will assist much. For instance, a decidedly tenacious or clayey soil is indicated by the clods upon the plowed surface, and perhaps the number of pounds required to draw apart a certain packed portion of soil might indicate somewhat the relative proportions of clay and sand. Vegetable mould is indicated by color and texture; lime, if carbonate, by the method just described. In many cases, direct experiment with manures is worth more than any analysis could be, though analysis often *suggests* or points out in what direction experiments may be most advantageously made.

2. With regard to the orchard, apple trees thrive well on soils which are well adapted to the growth of corn and potatoes. Wet or springy land would be improved by underdraining; if poor, by manuring for crops; and a great benefit would no doubt result from a good thorough cultivation of the soil. To suffer *young* trees to stand in grass, or to be closely surrounded by wheat, barley, or any sown crops, is only another name for ruin; Indian corn will not thrive in a pasture or wheat field; neither will young trees. Old trees will endure such treatment better, being larger, hardier, and deeper-rooted, and consequently not so much affected by slight causes. Corn will do as a crop for an orchard of large trees, while potatoes do admirably as one for small trees. Large trees may occasionally be surrounded by a crop of grass or grain; but no orchard can continue in a good condition, unless it is occasionally at least, well cultivated and manured.

An orchard which has stood many years in grass, has probably become stunted and scrubby in growth; in which case judicious pruning would doubtless be a benefit.

VARIOUS FARM EXPERIMENTS,

Condensed from accounts in exchange papers.

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Experiments with Different Manures.

A correspondentof of the New England Farmer reports the following experiments with different kinds of manures for turneps applied to land of "shallow loam," which was enriched in 1844, by a green crop of buckwheat plowed under—four square rods were appropriated to each kind of manure—the rate *per acre* is given for cost and yield.

Material.	Rate per acre.	Cost.	Yield.
Crushed bones,.....	80 bu.	$60 00	160 bu.
" "	30 "	22 50	120 "
3 qts. lime and 2 lbs. sul. acid,.....	4 bu. 80 lbs.	6 00	80 "
1 load muck, 10 lbs. guano,	40 " 400 "	24 00	150 "
Dana's compost, ...	40 loads,	13 50	*
Muck,.....	40 "	12 00	*
Leached ashes,.....	400 bushels,	40 00	180 "
Manure,.....	40 loads,	40 00	80 "
Coal ashes, ...	40 "	20 00	*
Bone and leached ashes, ..	30 bu. bone & 300 bu. ashes.	.....	300 "

The bone and sulphuric acid, with 5 quarts water, were soaked seven days, and then mixed with half-bushel loam. Dana's compost was of one load muck, one bushel salt, and one cask lime. The stars indicate that no turneps grew worth gathering, though larger than where nothing was applied. All were spread after plowing, and harrowed in. From our own experience, we think the stable manure would have given more than double, if it had been plowed in, and especially well mixed by harrowing. The same results are not to be expected on dissimilar soils, and not at all with different kinds of crops.

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Management of Privies.

Levi Bartlett, in his Address before the Merrimac Ag. Society, states his practice in substance, as follows, and it is one of the best modes we have seen noticed:—Adjoining his hog-house, is a yard 18 by 14 feet, dug 15 inches deep, the bottom level, and with a plank floor, and plank sides. A close board fence surrounds it. The privy, adjoining, has a tight box under it; and in an outer room is another box or sink in which all the soap suds is emptied. On washing days, a gate is opened in the sink, and all the soap suds passes by a large spout into the box under the privy, and escapes by a gate opened for the purpose, from this box, to the yard. The bottom of the yard is covered with muck or soil; a fresh supply of which is added once a month in summer. Thus by the hogs, vault, and soap suds, he gets one load a week of the richest kind of manure. Gypsum is thrown into the vault frequently. "How much," he asks, "is a barrel of soap worth for manure? It is worth none the less after having been used to wash clothes."

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Experiments with Corn.

Joseph Frost, of Elliot, Maine, gives a statement in the Boston Cultivator, of several experiments with the culture of corn, the substance of which we here give in a condensed form. The soil was all gravelly loam, except in the 4th experiment. The loads were 40 bushels, except in the two last experiments. In the second and fifth, the manure was plowed in by a second plowing—in the others it was harrowed in by the harrow or cultivator—the superiority of the crops in the former cases will be noticed. The different crops

were usually cultivated and hoed twice. The amount *per acre* given in all cases.

1st. Exp., 1842—10 loads compost—manured in hill—3½ feet apart each way—yield 30 bushels per acre.

2d Exp., 1843—Same field—23 loads compost per acre—hills 3 ft. by 15 inches, two stalks to a hill—75 sound bushels per acre.

3d Exp. Grass lea, plowed in fall—17 loads compost—hills 3 ft. by 2 ft., 4 stalks to a hill—55 sound bushels to the acre.

4th Exp. Black clayey loam, grass lea—fall plowed—12 loads compost—3½ feet each way, 6 seeds to a hill—40 bushels to the acre.

5th Exp., 1844—Rye lea—fall plowed—20 loads compost, 45 bushels each—3 feet by 15 inches—two stalks left to a hill—60 bushels to the acre—probably would have been 80 bushels but for the worms.

6th Exp., 1845—20 loads compost, 50 bushels each—3 ft. by 15 inches, three seeds to a hill—50 bushels per acre.

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COMPARISON OF MANURES.

L. BARTLETT, in his Merrimac Address states, that he applied manure of different kinds to a piece of corn, with the following results:—The best corn was that enriched with the manure from the stage-tavern; but the corn was about as good where a compost was applied, made of equal parts of this stable manure and muck. Another part that had donkey manure with an equal part of muck and perhaps a thirtieth part lime, made into compost, was nearly as good. Where common barn mauure was applied, the corn was inferior to the other. Another result was interesting. The compost of barn manure and muck in equal portions, and a thirtieth lime, was applied to potatoes before oats, and after the oats was grass. The rest of the land had an equal quantity of barn manure at the same time. In 1844, the third year, the grass was decidedly better where the compost was put; in 1845, the compost ground had a heavy crop of lodged grass, with a green second growth; the other was poorer, and brown, with no second crop. The permanent action of the muck, or lime, or both, was thus shown.

CARE OF SHEEP IN WINTER.

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MR. TUCKER—My barn is forty-eight feet by fifty-six, in the basement story of which I usually winter from two to three hundred sheep. I have always been uniform in my manner of feeding, and it has always consisted of hay and sheaf oats. I have always been careful to have my hay cut at the proper season, and somewhat particular to have it well cured; hence it follows that there is but little left in the racks to be strewed round the sheepfold as litter. The oats which I feed, are at the rate of one dozen to the hundred sheep, the straw of which is scattered round the sheepfold with a view to keep it sufficiently clean for the comfort of the sheep. For the last eight or ten years I have noticed by the middle of the winter, that my sheep would commence pulling the wool from their sides and hips; and in some instances by the last of March nearly all of the wool on the hips would be removed by the biting of the sheep. I have sometimes conjectured that the itching which roused the sheep to pull out the wool was produced by the sheepfold not having been kept sufficiently littered, but of this I was never perfectly satisfied until this winter. The hay which I have used for feeding my sheep this winter, was cut on a new meadow, was coarse timothy, largely intermingled with wheat straw from the scattering of wheat the preceding year. The effects of which has been a superabundance of wheat straw and coarse timothy left in the racks; this being scattered in addition to my usual amount of oat straw, has kept my sheep bedded in the finest possible manner. Now it has followed from this or some other unknown cause, that out of about five hundred sheep there is not a single instance in which the sheep have pulled any wool from their sides, belly, or hips. I have mentioned the above facts because I believe them to be conclusive on the subject alluded to. There are large sheep raisers in the western country that have no definite conception of the cause which prompts the sheep to pull the wool from their sides and hips in the latter part of the winter. From my experience this winter I can say with confidence that the remedy is to be found in well littered sheepfolds.

Respectfully yours, N. P. A.

Wheeling, Va., March 26th, 1845.

AGRICULTURAL RESOURCES OF EDGECOMB CO., N. C.

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L. TUCKER, ESQ.—In renewing my subscription for the ensuing year, allow me to trouble you with a few desultory remarks on this region of country, little known to the agricultural world, though not the less deserving a passing notice in the Cultivator.

The county of Edgecombe, of which Tarboro is the county seat, lies just below the hilly country of the "good old North state," and in the humble judgment of the writer, possesses advantages equal, if not superior to any county of the state for agricultural purposes.

We are a law and order loving people; obey the eleventh commandment—mind your own business, and let that of others alone—work hard— keep out of debt—and through the many trying financial difficulties our country has witnessed, have always presented the spectacle, of which we can justly boast, of peace and plenty.

We have a stream navigable for flat-bottomed boats passing through the county, with various creeks and swamps tributary to it, on one of which the lands are good, and with the inexhaustible beds of marl found in nearly every section of the county, can be rendered highly productive. Little or no attention has been paid to the subject of improvement till within a few years past. The heavy drain on our population by emigration to the south and west, and the severe cropping of those that remained, brought our lands down to their *minimum* value, from which point, in the nature of things, they must ascend in the scale. I am happy to say the reaction has taken place; our population are stable, and lands now command their full value.

In the marl, found here in such abundance, and in many places of superior quality, containing as much as 75 per cent. of pure lime, our farmers have discovered an efficient restorative for their worn out lands. The low prices have convinced many that without improving, the yield will not pay for cultivation, and we have set to work in earnest, and if this spirit of improvement is kept up for many years, the face of the country would hardly be recognized by those who have left us to settle on the virgin soils of the south and west.

Your intelligent and enterprising agent here, R. N, has done much to stir up the farmers of old Edgecombe to a sense of their interests, and has persuaded many inveterate haters of "book farming" to take the Cultivator. Say what you will, the thing is now beyond cavil, that agricultural works are of benefit, of immense benefit to the country, and as friend Solon says, in his "Notes of Travel in the Southwest," "wherever *they read the papers*, works of improvement are to be seen."

The hogs bought in Albany by R. N., and particularly the big hog *par excellence*, created considerable excitement in our usually quiet village, on their arrival at our landing—for several weeks were all the agony among the farmers who came to see them. They took much better than I expected to see them with our farmers.

We have had a fine crop-year. Cotton, corn, peas, and potatoes, turned out well, and our pork will now readily command $5 per cwt. 1845 may be set down with us as the driest and best crop-year known in many.

Respectfully yours, EDGECOMBE.

Tarboro', Dec. 20, 1845.

SOAKING CORN.—A successful farmer effects a saving of a third to one half by soaking his corn fed to horses in water, in barrels placed in the cellar where it cannot freeze.

NEW-YORK STATE AGRRICULTURAL SOCIETY.

Cattle Show and Fair for 1846, *to be held at Auburn, Sept.* 15, 16, *and* 17.

PREMIUM LIST FOR 1846.

ON FARMS.

For the best cultivated farm of not less than 50 acres, exclusive of woodland, regard being had to the quantity of produce, the manner and expense of cultivation, and the profits:
First premium,..... $50 | Second do., ... $30
Third do., ... $20.

The persons making application for these premiums, must submit written answers to a series of questions, printed copies of which may be obtained on application to J. B. Nott, Sec'y.

EXPERIMENTS AND ESSAYS.

For the most satisfactory experiment of stall feeding cattle, with a full detail of all the circumstances, ... $20
For the most satisfactory experiment in converting green crops or other vegetable matters into manure, with full details, &c., ... $10
For the most satisfactory experiment made for increasing manures in forming compost, ... $10
For the most satisfactory experiment for top dressing grass... 10
" " " subsoil plowing..... 10
" " " eradicating Can. thistle, 10
" " " draining,..... 10
" " " irrigation,..... 10
For the most satisfactory experiment on the improvement of seed wheat, by culture and propagation, ... $10

FARM DWELLINGS.

For the best design accompanied with plans and elevation, combining convenience, economy, and good taste.
For best,..... $15 | Second best, ... $10

Competitors for the premiums on Experiments and Designs, must forward their manuscripts to the Secretary, Albany, previous to the first of December, 1846, free of postage.

CATTLE.

CLASS I.—Durhams.

Best Bull, over 3 years old, $15 | Second best,..... $10
Third best, Diploma.
Best bull, 2 years old,..... $10 | Second best, ... Col. Tour.
Third best, Diploma.
Best yearling Bull, ... $10 | Second best, ...Col. Tour.
Third best, Diploma.
Best bull calf, ... Col. Tour, | Second best, ... Diploma.
Best cow, 3 years old, ...$15 | Second best,..... $10.
Third best, Diploma.
Best heifer, 2 years old,.... $10 | Second best,..... Col. Tour.
Third best, Diploma.
Best yearling heifer, ... $10 | Second best, ... Col. Tour.
Third best, Diploma.
Best heifer calf, ... Col. Tour. | Second best,..... Diploma.

CLASS II.—Herefords.

Best bull over 3 years old,.. $15 | Best cow, ... $15
Second best, ... 10 | Second best, ... 10
Best bull, between 1 and 3 years old,..... 10 | Best heifer between 1 and 3 years old, ... 10
Second best,..... Diploma. | Second best, ... Diploma.

CLASS III.—Devons.

Best bull, 3 years old,..... $15 | Best cow, ... $15
Second best, ... 10 | Second best, ... 10
Best bull between 1 and 3 years old, ... 10 | Best heifer, between 1 and and 3 years old,..... .. 10
Second best,..... Diploma. | Second best, ... Diploma.

CLASS IV.—Ayrshires.

Best bull, over 3 years old, $15 | Best cow, ... $15
Second best, ... 10 | Second best, ... 10
Best bull between 1 and 3 years old,..... 10 | Best heifer, between 1 and 3 years old, ... 10
Second best,..... Diploma. | Second best, ... Diploma.

CLASS V.—Crosses of Native and Improved.

Best cow over 3 years old, . $15 | Third best two years old heifer,..... Vol. Trans.
Second best,..... 10 | Best yearling heifer,..... $5
Third best,..... Vol. Trans. | Second best,..... Col. Tour.
Best 2 year old heifer,..... 15 | Third best , ... Vol. Trans.
Second best,..... 10 | Best heifer calf, Col. Tour.

CLASS VI.—Native Cattle.

Best cow over 3 years old,. $15 | Third best 2 yr. old heifer, . $5
Second best, ... 10 | Best yearling heifer, ... 5
Third best, ... Vel. Tr. | Second best, ... Col. Tour.
Best heifer, 2 years old,.... 15 | Third best,..... Vol. Trans.
Second best,..... 10 | Best heifer calf,.... Col. Tour.

WORKING OXEN.

Best team of 20 yoke from any one co., ... $25 | Third best yoke,.. Vol. Trans.
Second best, ... 15 | Best 10 yoke of oxen from any one town, ... $20
Best yoke of oxen,..... 15 | Second best, ... 10
Second best, ... 10 | Third best,..... Col. Tour.

THREE YEAR OLD STEERS.

Best yoke,..... $10 | Second best..... $5
Third best, ... Diploma.
Best team of 10 yoke from any one county, $15.
To boys between the ages of 16 and 20 inclusive, who shall exhibit the best broke yoke of 3 year old steers, of their own training, Col. Tour.
Second best do., ... Diploma. | Third best do., .. Transactions

TWO YEAR OLD STEERS.

Best yoke, ... $10 | Second best,..... Col. Tour
Third best, Vol. Trans.
To boys under 16 years of age, who shall exhibit the best broke yoke of 2 year old steers, of their own training, Col. Tour.
Second best,..... Diploma. | Third best, ... Vol. Trans

YEARLING STEERS.

Best yoke, ... $8 | Second best..... Col. Tour,
Third best, Vol. Trans.
To boys under 16 years of age who shall exhibit the best broke yoke of yearling steers of their own training, Col. Tour.
Second best,..... Diploma. | Third best,..... Vol. Trans.
In awarding the premiums on working oxen and steers, the single teams will be subjected to a trial on a loaded cart or wagon under the direction of the committee; and particular reference will be had to the matching, training, and docility of the animals, as well as their general appearance.

FAT CATTLE AND FAT SHEEP

Best pair fat oxen, ... $15 | Second best,..... $10
Third best, Colman's Tour.
Best ox or steer, ... $10 | Second best,..... $5
Third best, Vol. Trans.
Best fat cow or heifer..... $10 | Second best. $5
Third best ..... Vol. Trans.
A fat ox taking a premium as one of a pair, cannot compete singly for another premium.
Best fat sheep, ... $10 | Second best,..... Col. Tour.
Third best, Vol. Trans.
Applicants for the premiums on fat cattle and sheep, must furnish statements of the manner of feeding the animals, and the kind, quantity, and cost of the food.

STALLIONS.

CLASS I—*for all work.*

Best, over 4 years old,..... $10 | Third best, ... Diploma
Second best, ... $5 | Fourth best,..... Vol Trans

CLASS II.—*Blood.*

Best, over 4 years old..... $10 | Third best,..... Diploma
Second best,..... 5 | Fourth best,..... Vol. Trans

CLASS III.—*Draught.*

Best, over 4 years old, ... $10 | Third best,..... Diploma,
Second best,..... 5 | Fourth best,..... Vol. Trans

THREE YEARS OLD STALLIONS.

Best 3 years old stallion, .. $10 | Third best, ... Diploma
Second best, ... $5 | Fourth best, ... Vol. Trans

GELDINGS.

Best Gelding, ... $5 | Second best, ... Vol. Trans

MATCHED HORSES.

Best pair,..... $10 | Second,..... Diploma
Third best,..... 2 Vols. Trans.

MARES.

Best brood mare (with foal at her foot), for all work, $10.
Second best,..... $5 | Third..... Diploma.
Fourth... Vol. Transactions.
Best brood blood mare (with foal at her foot), $10.
Second best..... $5 | Third..... Diploma.
Fourth....Vol. Transactions.
Best brood draught mare (with foal at her foot), $10.
Second best..... $5 | Third..... Diploma
Fourth....Vol. Transactions.
Best mare 3 years old. .....$5. | Second best, ... Diploma.
Third....Vol. Transactions.

SHEEP.

CLASS I.—Long Wooled.

Best buck,..... $8 | Best 5 ewes,..... $8
Second best,..... Col. Tour. | Second best,..... Col. Tour
Third best,..... Diploma. | Third best,..... Diploma.
Best pen 5 lambs, $5.

CLASS II.—Middle Wooled.

Best buck,..... $8 | Best five ewes,..... $8
Second best,..... Col. Tour. | Second best,..... Col. Tour.
Third best,..... Diploma. | Third best,..... D'p'oma
Best pen 5 lambs, $5.
This class includes the South Down, Norfolk, Dorset, Native, &c.

CLASS III.—Merinos and their Grades.

Best buck,..... $8 | Best five ewes,..... $8
Second best,..... Col. Tour. | Second best, ... Col. Tour.
Third best,..... Diploma | Third best, ... Diploma
Best pen 5 lambs, $5.
This class includes all those generally denominated Merinos, whether of pure or mixed blood

CLASS IV.—SAXONS AND THEIR GRADES.

Best buck,.....$8 | Best five ewes,.....$8
Second best,.....Col. Tour. | Second best,.....Col. Tour.
Third best,.....Diploma. | Third best,.....Diploma.
Best pen 5 lambs, $5.

This class includes all those generally denominated Saxons, whether of pure or mixed blood.

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SWINE.

Best boar, over 10 months, $10 | Best sow,.....$10
Second best,.....Col Tour. | Second best,.....Col. Tour.
Third best,.....Diploma. | Third best,.....Diploma.
Best lot of pigs under 10 months, not less than four in number, Colman's Tour. Second best, Diploma.

In awarding premiums on hogs, reference will be had not merely to size or present condition, but to that proportion between bone and meat which promises the greatest value from the least amount of feed.

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POULTRY.

For the best lot of Dorking fowls, not less than 3, one cock and two hens,..... $3
For the best lot of Black Poland, not less than three,..... 3
For the best lot of large fowls, not less than three,..... 3
For the best pair of ducks,.. $3 | For the best pair of turkeys, 3
For the best pair of geese,..... 3
For the best and greatest variety of barn yard fowls owned by the exhibitor, $10.

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FARM IMPLEMENTS.

Best Plow,*.....Silver Medal
Second do .....Diploma.
Third do .....Vol. Trans.
Best subsoil plow, Silver Med.
Second do Diploma.
Third do Vol. Transactions.
Best farm wagon, Silver Medal.
Second do Diploma.
Third do Vol. Transactions.
Best Harrow, Silver Medal.
Best Cultivator, Silver Medal.
Best fanning mill, Silver Medal.
Second do Diploma.
Third do Vol. Transactions.
Best horse power, Silver Med.
Second do Diploma.
Third do Vol. Transactions.
Best corn stalk cutter, Sil. Med.
Second do Diploma
Third do Vol. Transactions.
Best threshing machine, Silver Medal.
Second do Diploma.
Third do Vol. Transactions.
Best drill barrow, Diploma.
Best straw cutter, Silver Medal.
2d best straw cutter, Diploma.
Third do Vol. Transactions.
Best corn and cob crusher, $10
Second do Diploma.
Third do Vol. Transactions.
Best clover machine, $10
Second do Diploma.
Third do Vol. Transactions.
Best flax and hemp dresser. $10
Second do Diploma.
Third do Vol. Transactions.
Best horse cart,.....Diploma.
Best ox cart,..... do
Best horse rake,..... do
Best ox yoke,..... do
Best farm harness,.... do
Best saddle,..... do
Best grain cradle,.... do
Best six hand rakes,.. do
Best six hay forks,... do
Best six grass scythes, do
Best six cradle scythes, do
Best six dung forks,.. do
Best six axes,..... do
Best six hoes,..... do
Best hay rigging,..... $5

* The trial of plows will take place on Tuesday, Sept. 15th.

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For the best and most numerous collection of agricultural implements, $10.

Also, for the best and most numerous collection of agricultural implements manufactured in the state of New-York, by or under the supervision of the exhibitor,.....Silver Medal.

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PLOWING MATCH.

First Premium,..... $15 | Third premium,..... $10
Second do ..... 12 | Fourth do Colman's Tour.
Fifth,....Vol. Transactions.

For boys under eighteen years of age:

First premium,.....$10 | Second, ...$5
Third,....Vol. Transactions.

One-fourth of an acre will be required to be plowed within an hour and a quarter, with 15 minutes for rest—the furrow slice to be not over 12 inches wide, nor less than 8 inches in depth. The plowman to drive his own team, and the furrow slice to remain as left by the plow.

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BUTTER.

For the best lot (quality as well as quantity considered,) made from five cows, in 30 successive days—25 lbs of the butter to be exhibited, $25.

Second best,..... $15 | Third best,..... $10

Compliance with the following rules will be strictly required of those who compete for these premiums, viz: The cows to be fed on pasture, green corn-stalk fodder, or grass cut for the purpose, only. No grain, roots or slops of any description, to be fed during the trial, nor for fifteen days preceding the trial. The cows to be owned by the competitors previous to the 1st day of Feb'y, 1846. The milk drawn from the cows on some one day during the trial to be accurately weighed and measured, and the result stated. A sample of at least 25 lbs. of the butter so made to be exhibited at the fair at Auburn, for the inspection of the examining committee. The particular breed of the cows to be stated, if known, and the method of making and preserving the butter. A certificate signed by the owners of the cows, and at least one other person who assisted in milking and making the butter, detailing the above particulars, will be required.

The executive committee believe that few if any premiums offered on neat cattle will result in greater benefit to the farming interest, than those on the products of the dairy, providing fixed rules, requiring uniformity of feed, be faithfully enforced. The increased list of premiums is offered with the hope it will induce extensive competition throughout the state. Let this object be accomplished, and an opinion approximating to accuracy may be formed by the public which of the several breeds of cows are the best for dairy purposes, and from those that prove the best, further improvement may be made.

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Best 25 pounds made in June,$10 | Second best,..... Col. Tour
Second best,.....Col's Tour. | Third best,.....Silver Medal.
Third best,.....Vol. Trans. | Fourth best,.....Diploma.
Best 50 lbs. made at any time, $15. | Fifth best,.....Vol. Trans.

The claimants for premiums must state in writing the time when it was made; the number of cows kept on the farm; the mode of keeping; the treatment of the cream and milk before churning; the mode of churning, winter and summer; the method of freeing the butter from the milk; the quantity and kind of salt used; whether saltpetre or any other substances have been employed.

The butter offered for premiums must be presented in butter tubs, jars or firkins.

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CHEESE.

One year old and over.

Best 100 lbs.,.....$15. | 3d best,.....Silver Medal.
2d best,.....Col Tour | 4th do .....Diploma.
5th do .....Vol. Transactions.

Less than one year old.

Best 100 lbs.,..... $15 | 3d best,.....Silver Medal.
2d best,.....Col. Tour. | 4th do .....Diploma.
5th do .....Vol. Transactions.

Those who present cheese for the premiums offered, must state in writing the time when it was made; the number of cows kept; whether the cheese was made from one, two or more milkings; whether any addition is made of cream; the quantity of rennet used, and the mode of preparing it; the mode of pressure, and the treatment of cheese afterwards.

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DAIRIES.

For the best cheese dairy, $50 | Second best,..... $30
Third best,....$20.
B. P. JOHNSON, of Rome, Oneida county, Chairman.

For the best butter dairy, $25 | Second do $15 | Third do $10
ZADOC PRATT, of Prattsville, Chairman.

The competitors for the above premiums must comply with the following regulations. They must state the actual product of the cheese or butter dairy, the locality of such dairy in latitude; the composition of the soil as near as may be where the dairy farm is situated; the kind of grass used for pasture and for hay; the quantity, in pounds, of milk per cow on the average and in the aggregate; the quantity of cheese or butter to the hundred pounds of milk produced; the gross quantity of milk and cheese, or butter, produced, the quality of the cheese or butter, the method of making, the breed of cows composing the dairy, and all such other details procured as shall determine the most profitable mode of conducting the cheese or butter dairy business.

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SUGAR.

Best 25 lbs. maple sugar, .. $10 | Third best..... Diploma.
Second best,..... 5 | Fourth best, ... Vol. Trans.
For the best 25 lbs. of cornstalk sugar, Silver Medal.

No premium to be awarded unless the sample offered shall be deemed worthy of it.

The process of manufacture and clarifying must be particularly stated in reference to the maple and cornstalk sugar.

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SILK.

Best specimen manufactured, (woven into cloth or ribbons,) $15
Second best, ... 10
Third best..... Colman's Tour.
Fourth best.....Vol. Trans.
Best specimen not less than one pound reeled silk,..... $5
Second best, ... Diploma.
Third best,..... Vol. Trans.
Best specimen sewing silk, not less than one pound, of domestic growth,..... $10
Second best, ... 5
Third best, ... Diploma.
Fourth best,..... Vol. Trans.
Best one-half bushel cocoons, 1846,..... $10
Second best,....Colman's Tour.
Third best, ... Diploma.

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DOMESTIC MANUFACTURES.

Best woolen blankets, $5—Second, 4—Third, 3.
Best ten yards flannel, $5—Second, 4—Third, 3.
Best 10 yards woolen cloth, $5—Second, 4—Third, 3.
Best woolen carpet, $5—Second, 4—Third, 3.
Best tow cloth, 15 yards, $3—Second, diploma.
Best 10 yards linen, $5—Second 4—Third, 3.
Best 10 yards linen diaper, $5—Second, 4—Third, 3.
Best hearth rug, $5—Second, 4—Third. 3—Fourth, 2—Fifth, Trans—Sixth, Dip.
Best 10 yards kersey, $3—Second best. 2—Third. Trans.
Best rag carpet, 15 yards, $3—Second, 2—Third, Trans.
Best double carpet coverlet, $4—Second, 3—Third, 2—Fourth, Trans.
Best pair woolen knit stockings, $2—Second, Trans.—Third, Diploma.
Best wove woolen stockings, $2—Second, Trans—Third, Dip.
Best cotton wove stockings, $2—Second. Vol. Trans.—Third, Diploma.
Best lb. of linen sewing thread, $2—Second, Trans—Third, Dip.
Best linen woven stockings, $2—Second, Trans.—Third, Dip.
Best linen knit stockings, $2—Second. Trans.—Third, Dip.
Best knit cotton stockings, $2—Second, Tr.—Third, Diploma.
Best bed quilt, or other bed or window furniture, discretionary premiums, at the option of the committee

FRUIT.

For the greatest variety table apples, $5.
For the second greatest,.... $3 | For the third greatest, Vol. Tr.
For the best twelve sorts, not less than three of each, $3
Best new seedling apple, ... $3
For the greatest variety of table pears,..... 3
For the second greatest,..... Vol. Trans.
For the greatest variety of winter pears,..... " "
For the best twelve quinces,..... " "
For the best twelve peaches..... " "
For the best twenty-four plums, ... " "
For the best six bunches of native grapes,..... " "
For the best six bunches of foreign grapes,..... " "
For the best dozen Figs,..... Diploma.
For the second best, " ..... Vol. Trans.
For best one-half dozen oranges,..... " "
For best " " lemons, ... " "
For best dozen nectarines,..... " "
For best dozen apricots, ... " "
For best dozen pomegranates, ... " "
For best pint almonds,..... " "

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Resolved, That a committee of —— be appointed by the Executive Committee, who shall report at the next annual meeting a list of not exceeding 30 kinds of apples, which shall be in their opinion best adapted to the economical demands of the people of this state, and to be best suited to the different localities of the same, comprising their most extensive use in all seasons, for home consumption, and for exportation, the individual names of said fruits, a drawing of each separate kind, with a particular description thereof; and that in this connection they also take into consideration the several classes of fine fruits as adapted to the above purposes, and —— dollars be appropriated as in the judgment of the Executive Committee shall be necessary to accomplish this object.

Committee.—L. F. Allen, Black Rock; Dr. A. Stevens, New-York; Dr. A. Thompson, Aurora; I. C. Platt, Plattsburgh; Prof. J. Jackson, Schenectady.

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FLOWERS.

For the greatest variety and quantity, Silver Medal.
For the second greatest,... Dip | For third greatest, Vol. Trans.
For the best Floral ornament, Silver Medal.
For the second best, .. Diploma. | For best seedling Dahlia, Dip.
For third best,..... Vol. Trans. | For the second best, Vol. Trans.
For the best twenty-five varieties of Dahlias, Silver Medal.
For the second best, ... Dip. | For the third best,.... Vol. Tr.
For the most beautiful boquet, composed of not less than twelve varieties, Col. Tour.
Second best, ... Dip. | Third best,..... Vol. Trans.
For the greatest variety of house plants owned by one individual, Diploma..... Second greatest, Vol. Trans.
For the best 20 varieties German asters, ... Vol. Trans.
For best six varieties carnation pink,..... "
For best 12 varieties roses in bloom, ... Diploma.
Second best,..... Vol. Trans.
For best 3 varieties of Cactus in bloom,..... Dip.
For best 3 varieties Camellia Japonica, in bloom ... Dip.
For best single Camellia in bloom, ... Diploma.
Best 6 Geraniums in bloom, ... Diploma.
Second best, ... Vol. Trans.

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VEGETABLES.

24 best stalks celery, 2 vols Tr.
6 best heads cauliflower, "
6 best heads broccoli,.. "
12 best white table turneps,..... vol. Tr.
12 best carrots,..... "
12 best table beets,..... "
12 best parsnips,..... "
12 best onions, ... "
3 best heads of cabbage, "
12 best tomatoes, ... "
2 best purple egg plants, "
12 best sweet potatoes,.. Trans.
12 best watermelons, .. Trans
Best half peck Lima b'ns, vl. Tr
Best half-peck Windsor beans,..... "
Best bunch double parsley,..... "
Three best squashes,... "
Largest pumpkin, ... "
12 best ears seed corn,.. "
Best half peck table potatoes, ... $2
Second best. ..... Trans.
Best seedling potato, ... $5
12 Canteleupe melons,.. Trans.

Discretionary premiums will be awarded on choice garden products not above enumerated.

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MISCELLANEOUS.

Best Iron Gate for farm purposes,, ... Silver Medal.
" Ornamental cast-iron vase, on pedestal,..... Diploma.
" Sample drain tile, ... Diploma.
" quarter of an acre of osier willow, and the best specimens manufactured from the product, $8.
Best specimen wire hurdle fence, to be accompanied with an account of cost, Silver Medal.

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DISCRETIONARY PREMIUMS.

Will be awarded for—
1st—Stoves and other Manufactures of Iron.
2d—Paintings and Drawings.
3d—Ornamental Shell, Needle, and Wax work.
4th—Implements and Machinery.
Also, for all such other articles and products not enumerated above, as shall be deemed worthy of encouragement

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FIELD CROPS.

Best crop of wheat raised upon any one farm, $15.
Second best,..... $10 | Third best, 2 vols. Transactions
Best crop of spring wheat raised upon any one farm, $15.
Second best,..... $10 | Third best, 2 vols. Transactions.
Best crop of Indian corn raised upon any one farm, $15.
Second best,..... $10 | Third best, Vol. Transactions.
Best crop of barley raised upon any one farm, $10.
Second best,..... $5 | Third best, Vol. Transactions.
Best crop of rye raised upon any one farm, $10.
Second best,..... $5 | Third best, Vol. Transactions.
Best crop of oats raised upon any one farm, $10.
Second best,..... $5 | Third best, Vol. Transactions.
Best crop of potatoes, for table, raised upon any one farm, $10.
Second best,..... $5 | Third best, Vol. Transactions.
Best crop of potatoes, quantity considered, raised upon any one farm, $10.
Second best,..... $5 | Third best, Vol. Transactions.
Best crop of sugar beets raised upon any one farm, $10.
Second best,..... $5 | Third best, Vol. Transactions.
Best crop of mangel wurtzel raised upon any one farm, $10.
Second best,..... $5 | Third best, Vol Transactions.
Best crop of ruta baga raised upon any one farm, $10.
Second best,..... $5 | Third best, Vol. Transactions.
Best crop of carrots raised upon any one farm, $10.
Second best,..... $5 | Third best, Vol. Transactions.
Best crop of peas raised upon any one farm, $10.
Second best,..... $5 | Third best, Vol. Transactions.

N B. It is understood the above premiums are to be awarded for crops raised in the usuual cultivation of the farm—to include the entire crop raised in each case It is not intended to offer premiums for crops raised on small parcels of land—by unusual manuring and cultivation.

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Best acre of corn, for fodder, $5.
Best half acre of hops,..... $5 | Best half acre of tobacco, $5
Best half acre of flax..... 5 | Best acre of cabbage,..... 5
Best acre of broom corn, $5.
Best acre of clover seed, $10.
Second best,..... Col. Tour. | Third best, Vol. Transactions.
Best acre of timothy seed, $10.
Second best,..... Col. Tour. | Third best,..... Diploma.

Those who present claims to premiums for farm crops must state in writing the following particulars: The condition of the soil at the commencement of cultivation for the crop, the previous crop and cultivation, and quantity of manure used upon it, the quantity and kind of manure the present season, the quantity and sort of seed used, the time and manner of sowing, cleaning and harvesting the crop, the amount of the crop determined by actual weight or measurement, and the expense of cultivation. The land shall be measured by some surveyor, who shall swear to the correctness of his survey, and that it was made with a chain and compass, and the claimant of the premium, with two other persons who assisted in measuring, shall certify under oath as to the quantity produced from the piece of land mentioned in the certificate of the surveyor—and a sample of grain shall be presented at the annual meeting, with the oath of the applicant that the same is a fair sample of the whole crop.

The statements required from those who compete for the premiums on farms and field crops, must be sent to J. B. Nott, Recording Secretary, Albany, previous to the 1st of December, 1846, and the premiums will be awarded at the annual meeting of the Society on the third Wednesday of January.

N. B. Plate will be substituted for money, on the application of the persons receiving the premium.

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PREMIUMS FOR 1847—1848—1849.

Whereas, The Agricultural Society of the State of New-York has not an experimental farm; and wherens, to some extent, satisfactory experiments can be made by intelligent farmers on their own farms; therefore,

Resolved, That the undermentioned list of premiums be offered to induce public spirited individuals to lend their valuable aid in extending the boundaries of accurate rural knowledge.

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Three premiums will be awarded of $30, $20, and $10, in January, 1848. For the best experiment upon a herd of not less than 8 cows, to determine the relative advantages of soiling, or depasturing milch cows. The experiment to be conducted as follows:

1st. The experiment must commence on the first day of May, and be continued until the first day of November.

2d. The cows to be divided in two lots of four each. One lot to be soiled, the other depastured. Before commencing the experiment, each lot must be weighed and the record of the weight returned to the committee. It is necessary that the two lots shall be as near alike in weight and milking properties as possible.

3d. The milk of each lot to be weighed separate daily.

4th. The manure made from those soiled to be ascertained in cords.

5th. An account to be kept of the expense of soiling, also a detailed statement of the entire management, together with the measurement of the land occupied in soiling, and each to be returned to the committee.

6th. A description and measurement of the land occupied for pasture, also to be made.

7th. Each lot to be weighed at the conclusion of the experiment.

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For the best experiment to be continued through three crops, to ascertain in bushels of grain and weight of stalks or straw the actual value of manure to a farmer. The experiments to be conducted as follows, viz:

1st. Three contiguous acres of ground shall be selected.

2d. One acre of which shall be manured with not more than ten cords of common barn yard manure the first year, and plowed un-

der. The second acre to be manured with fermented or composted manure, to be applied in any manner the experimenter chooses —but a full account of the mode is to be made, and the manner of application. Also, an accurate account of the cost of the material and its application.

3d. The three acres are to be planted with corn the first year; the second to be sowed with barley or oats; the third crop to be winter grain; an accurate account of the yield of each crop to be kept.

4th. A full account of the whole management and all the details respecting the culture and the circumstances affecting the crop.

5th. The several kinds of soil to be particularly described, and specimens transmitted to the State Society for analysis before commencing the experiment—and also at the conclusion of the experiment—discriminating carefully between each acre.

For the best, $40. 2d best, $30. 3d best, $20.

N. B. The specimens of soil to be selected for analysis, must be taken from the surface in different parts of the acre. Where the acre is green sward, the sample must be taken just at the termination of the roots of the grass. Specimens should also be selected from the depth of 7 or eight inches. At all events, immediately below the usual depth to which the plow runs. The specimens of soil must in no case be mixed; and should consist of about 1 lb., sewed in a cotton bag.

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$20 will be paid at the annual meeting of the society in 1848 to the person who will make the most satisfactory agricultural experiment, accuracy and the importance of the experiment to be taken into consideration. A full detail of the experiment and its results must accompany the application.

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For the best managed entire flock of sheep of not less than 100, to be awarded at the annual meeting in 1848.

Best, $30 2d best, $20 3d best, $10

The applicant for these premiums will be required to furnish the Society with the following information, viz:

1st. The kind and quantity of food and its value.

2d. The quantity and quality of wool—this to be determined by its being submitted to the stapling of some respectable manufacturing establishment, whose certificate shall accompany the application for the premium.

3d. The number of the increase.

4th. Kind of sheep and the number of ewes, wethers and bucks.

5th. The value of sheep when fattened, and the value of lambs for the butcher.

WOODLANDS.

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MR. TUCKER—There are two objects which actuate in the removal of timber from the forest. The first of these is to clear lands hitherto unimproved, and render them fit for cultivation, while the second is to furnish fuel for the necessary purposes of heat, and timber for the various uses which the circumstances of life require. Where the former object is to be attained, it is desirable to perform the operation of *cutting over* at a season when the roots and stumps will be least likely to throw up new shoots, and also when decay will be the most rapid and effectual, while in the latter case a contrary effect is sought for, and a time should be improved when reproduction will be likely most effectually to ensue. Nature, as if ever mindful of the convenience as well as the wants of man, has kindly provided for both desideratums, and it is only for us to consult her wise arrangements in order to avail ourselves of the facilities she offers in order to effect our own purposes. And as if more fully to aid in our designs in regard to both, she has arranged her plans so as to bring the time for our action at a season when other labors do not present their most pressing demands.

The economy of vegetable physiology is a subject which may well invite the study of the cultivator of the soil. It is one with which most cultivators of the present day are somewhat familiar, so that any remarks on that point, if our limits would permit, would, perhaps, be wholly out of place. It is a fact well known *to all* that there are seasons of the year when the flow of sap or blood of plants flows most freely, and the slightest wound upon a shrub or tree will cause it to flow abundantly. Then we have only to carry the cause further and we see a much greater effect. Cut off a tree near the ground at these seasons, and this *bleeding* will be manifest at every pore until a fatal exhaustion takes place, and *death*, and its consequent attendant, decay ensues. These seasons, as every body knows, are spring, while the freezing and thawing of the ground continues, and in autumn, while similar agencies are going forward. These are unquestionably the best times for *destroying* timber lands, and causing root and stump to pass quickly away. All who are acquainted with the growth of chestnut timber, must know full well its astonishing powers at reproduction by throwing up suckers. We once, in our ignorance, had the presumptive folly to cut several trees of this timber, in the freezing and thawing month of March, but no monument of this folly now remains. From about twenty *bleeding stumps* produced by the operation, not a single sprout ever sprung up to gladden our eyes with the cheering assurance that "there is hope of a tree though it be cut down," and but a very few years went by before every vestige of these decaying stumps was gone. This sad experiment, be it known, was performed in *woodland* where no cattle, or sheep, or any such things were permitted to graze, consequently the failure was owing wholly and entirely to the chopping at an injudicious and fatal time. But the evil did not stop here. The quality of the timber was depreciated by the operation; it was neither so fine in consistency, nor so durable as neighboring trees cut at more appropriate seasons.

Ye who value your timber and your timber lands, we say to you, one and all, keep your axes out of them so long as the Ides of March hold influence. During this sloppy winter month you had better be employed in preparing fuel at your doors, and splitting rails on some dry bank, from timber previously cut. "Woodman," if you value your timber land, "spare that tree," at all times and in all seasons when trees bleed from the slightest incision of the axe, or from any other little accident which may produce a wound from which the sap will flow.

We have now given what we consider the very worst time for cutting timber, with regard to the preservation of the woodlot, and have very honestly exposed an act of our own folly in proof of it. With equal frankness, we offer our experience with regard to the very best time for this operation, and this part of the story is soon told. December and January are decidedly the best months for this part of the farmer's service and it may, in most seasons be continued until the middle of February. Beyond this time, your deponent would not go, and he would rather keep four or five weeks back of it, *shuddering*, as near as possible to the winter solstice. It is a fact that all may witness, if they will not take our word for it, that the stumps where trees are taken off in winter will bleed more or less in spring, and further, that the longer they have been cut the less the flow of sap will be, a fact owing to the circumstance that the longer the pores or amputated sap vessels have been exposed to the atmosphere, and perhaps partly from the influence of frost, the more inactive they become, and in consequence the less facility they offer for the escape of sap. Now it is this bleeding that we would stop, and turn all the resources of the roots into a new channel, nourishing a new set of shoots. Some cheap substance might, undoubtedly, be applied to stop it entirely, but farmers do not know how to spend time to doctor stumps, though *some* of our medical faculty might, perhaps, be well spared for that service.

But again to our experiment. We have cut chestnut trees in December, that gave shoots of a dozen feet the next season, while other reproductive trees gave growth according to the character of their species in the same ratio.

Next to the dead of winter, June, the sweet month of smiling skies and more smiling flowers, offers perhaps, the best time for cutting timber. The forests are then again taking a temporary rest, and the functions of life are comparatively relaxed and inactive. The influence of heat too, for though heat is the reverse of cold, its effects are in some respects similar, undoubtedly contributes to make the month favorable.

But here we would say again, keep near the summer solstice, for the nearer the better. We have cut timber in June and had sprouts start handsomely that season, and in the dry season of 1845, we noticed such a fact particularly. There is one important consideration to be attended to when timber is cut in this month. It should be divested of its bark as soon as possible so as to give a full exposure of the newly formed cambium to

the influence of the sun and the atmosphere. When this is done, the cambium or sap-wood acquires a firmness which will enable it to last, even if exposed to the weather, for years. Indeed, in point of firmness, it will not fall much if any behind the heart-wood of the same tree. We know of no purpose for which timber can be applied by the farmer, for which we can offer any objection to its being cut in this month, if it seasons with the *bark off*. There is one consideration only, in our mind, which gives winter a preference for chopping. That is, that it is a season when the farmer is more released from other labors, and hence, in our climate, it is a season which seems admirably set apart for the operation. But chop when you will, if for timber, strip the bark as soon as possible, if you would arrest the progress of decay.

Another consideration to be attended to to facilitate reproduction, is to cut close to the ground, and economy in timber also indicates the same thing.

Yours, truly, WM. BACON.

Mount Osceola, Jan. 10, 1846.

ON PLOWING.

MR. EDITOR—Reverting, as is my custom during stormy weather, or a season of comparative leisure, to the back volumes of the Cultivator, for instruction, as well as amusement, and sure to find it, my attention has been often directed to the subject of *plowing*—that most important of all labors—and my mind having of late been much exercised on that topic, I have been led to re-examine the very numerous articles relating thereto, which I find scattered up and down your invaluable pages, forming an almost endless variety of information on a business that demands far more of our consideration than it has ever yet received. And assuredly, the most interesting and important of all those articles is that which occurs at p. 10, vol. VIII., number for Jan., 1841, continued at p. 11, of the next number, which may be said to form the text-book of this country as well as of England, embracing as it does, a very minute account of the most important trials of the plow in both countries, and which may be said to set the matter pretty much at rest, so far as comparative merit is concerned. But it must be confessed, that is a subject which I do not at present go in for. My business being with a much *more* important consideration, namely, the degree of cultivation bestowed *by the plow*—of far greater consequence than that performed by the harrow and roller combined; the pulverization being as perfect at the bottom as on the top of the furrow, quite out of the reach of those implements, and rendering, in a great degree, their aid unnecessary, especially in autumnal plowing, which is beginning to receive that consideration which its importance demands. And to this view of the case I am brought by the late trial of plows of the Philadelphia Agricultural Society's exhibition, during the three days of which, the center-draught plow of Prouty & Mears, was kept going on an adjoining field, from which a very heavy crop of corn had been removed; the stalks, full of vigor and of enormous growth, with weeds four feet in height, being buried as though they had never been, by a pair of horses, carrying a furrow nine inches deep and fifteen inches wide; the plow, a considerable portion of the time requiring no holder. Here I saw and understood the meaning of the term *spade plowing*; for assuredly, no one could more perfectly pulvervize the soil with the spade than was done, to the depth of nine inches, with the plow. And on visiting the scene of action, after rain, snow, and frost, I am convinced that a double plowing and thrice harrowing after any other plow could not have brought about such a state of thorough cultivation, with no danger of winter washing. It need not be added, this plow again took the first premium at the match.

But I have an act of justice to perform, which I respectfully ask you to assist me in rendering, by the use of your very widely disseminated pages, in declaring that to Messrs. Prouty and Mears, are the public indebted for the first introduction of the principle of Centre-Draught among us. And although the Farmer's Monthly Visitor observed very truly, that "Mr. Prouty of Boston, is *undoubtedly* entitled to the credit of inventing and making this first great improvement of the American plow," yet there are many who consider the question of priority of invention not fully decided. To such I have only to produce the testimony, borne by yourself, in the article above mentioned, as affording the clearest proof that at the trial at Worcester, in 1840, which embraced the plows of Prouty & Mears, Ruggles & Nourse, Howard, Wilson, Stevens, Stewart, Bergen, Whiting, and Barnaby & Mooer, the Prouty plow was the *only one* that worked on the principle of Centre-Draft. It is well known, that, with a *single exception*, plows are so constructed, that the point of the share is in that line, &c. "The plow noted as *an exception*, being Prouty & Mears' Centre Draft, which obtained a premium of $100 at the Worcester fair, and which worked 100 per cent. easier than some other plows on the ground, the draft being equal on both sides of the beam, as was proved by its showing no disposition to deviate from its course when left to its own guidance, and of course, imposing no labor on the plowman or team in their efforts to keep it in a proper position."

To those who enquire "What is the meaning of the term center-draught?" a writer has given a satisfactory answer. "The center-draft of a plow is proved by the power applied for its guidance—and the plow that has a perfect *center draft*, would require no guidance at the handles in a soil of equal moisture, provided the draft was applied in a straight line with the furrow." Prouty's plow must therefore be the *beau ideal* of the principle of center-draught, according to the report of the committee on plowing at the meeting of St. George's, Del., which says—"The second premium for *plowing* is awarded to Wm. Banks, Prouty & Mears' center-draft plow, No. 5½, it being impossible to award the *first* premium to the plow—so perfect in all its parts as to go without guiding—the premium being intended for the plowman and not for the plow."

I find that this plow was not permitted to enter for the premium at Prince George's Md., the present year, "having already obtained the highest award"—the highest praise in the committee's power to bestow, and I would beg to recommend the practiee worthy of adoption elsewhere, as being far preferable to the award of second premiums, which never give satisfaction to any one. *Middletown, Del.* L. D.

IMPROVED SHORT-HORN CATTLE.

LUTHER TUCKER, ESQ.—Having recently received a letter from THOMAS BATES, Esq., of Kirkleavington, Yorkshire, England, and believing some extracts from it will possess sufficient interest to insure them a cordial reception to many patrons of the Cultivator, I herewith take the liberty of enclosing them to you for publication. It will be perceived that these extracts, principally relate to premiums recently awarded to Short-Horn Durhams, at some of the principal cattle shows in England and Scotland. They can hardly fail of being interesting to gentlemen whose efforts are directed to the improvement of the cattle of this country, and particularly so, to such as have purchased from my herd, cattle possessing the same strain of blood as those to which Mr. Bates alludes.

Mr. Bates remarks, "I think I gave you an account in my former letter, of Mr. C. W. Harvey's, of Walton, (near Liverpool,) successful exhibition of his Short-Horn bull Walton, at the Beverly show of the Yorkshire Agricultural Society, having obtained the highest premium for the best bull of any age. This bull Walton, was from the own sister of the dam of Lady Barrington, 3d, (513) which latter cow I sent out to America to you, Sept. 1844. The sire of Walton is Locomotive, (4242,) whose dam and your Duke of Wellington's dam is my premium cow Oxford, (752.)

"The bull Walton was also exhibited at the late great meeting of the Liverpool Agricultural Show, and received the highest honor of being the best aged bull exhibited beyond two years old; and his son, named the Lad of Safton, received the highest honor of being declared the best bull under two years old. Lad of Safton's dam was got by my Duke of Northumberland. In the evening after the exhibition, the bull Walton was shipped, and sent to Dumfries to the great annual meeting of the Highland Agricultural Society of Scotland; where the premiums are open to all England; and he there again received the highest premium for the best Bull of any age; and was esteemed the best bull ever exhibited in Scotland, of the Short-Horn breed. The second best bull exhibited at Dumfries, of the Short-Horn breed, belonged to Mr Wm. Jobson, and was got by my second Duke of Northumberland; so that the best bulls exhibited were of the Duke of Northumberland tribe of cattle, and owed their superiority to that blood. The public mind in England begins to see more and more of the merits of this tribe of cattle. The late Earl Spencer and other breeders, have recently been purchasing descendants of my stock. Mr. C. W. Harvey, owner of Walton, previous to his exhibition at Liverpool, let a son of Walton for 60 guineas, (about $300,) for the use of 12 cows; and I have let bulls higher than this—75 guineas for the use of 12 cows. I have no doubt that Mr. Bell, (who is his owner,) will readily sell the young bull out of your Lady Barrington, 3d, at 100 guineas, though he is a red color. The fashion here is roan, and such is the caprice here at present, that a roan color will give one-third more price. Walton is a roan, out of a red, Lady Barrington, and his calves are mostly roan or white.

The original Dutchess family are red and white, with an occasional roan. My 50th Dutchess is white, the only white one that has been of that family, and she is by Duke of Northumberland."

I might multiply extracts from the letter of this veteran scientific breeder, which doubtless would be acceptable to many who are devoting their time and means to improve the breed of cattle of this country; the eminent success which has crowned the steady, unwavering perseverance of this gentleman for a period of 60 years, would prove an immense value to the agriculturists of this country, should the example here presented be followed by our countrymen, in the improvement of the different breeds of cattle in this country. Mr. Bates is now over 80 years of age, and is blessed with the enjoyment of uninterrupted health, and continues to devote his time and energies to agricultural pursuits, with a perseverance which is characteristic of the devotion of a man of thirty. Permit me to add in the language of another, speaking of Mr. Bates as a breeder:—"This gentleman was not the copyist but the contemporary of Mr. Colling, with whom he lived on terms of friendly intercourse, and as breeders, they indulged in a free interchange of views and opinions. It was not, therefore surprising that they arrived at the same conclusions, and pursued the same means, and aimed at the same results. Those who feel any interest in the subject will find much that is curious and instructive, in a close examination of Mr. Bates' course of breeding, which may be done by reference to the Herd-Book, and by a little subsequent arrangement of the materials, he will then find such an investigation is the better worth perusing, since the awards of the Royal Agricultural Society in 1839, have borne such ample testimony to its success. Those who make this analysis may have to acknowledge that "*close breeding*" in competent hands, is the acme of the science."

Mr. Bates principally attributes his success in breeding to the blood of his Dutchess tribe, which were originally bred by the ancestors of the Duke of Northumberland, of which he says, in a communication addressed to the publishers of the print of his celebrated prize bull Duke of Northumberland—"I have undoubted information from the best authority for saying that this tribe of Short-Horns was in the possession of the ancestors of the present Duke for two centuries, and that Sir Hugh Smythson, the grandfather of the present Duke, kept up the celebrity of this tribe of cattle by paying the utmost attention to their breeding, having purchased my original cow of this tribe of cattle of the late Charles Colling, Esq., of Ketton, near Darlington, 35 years ago; they had been in the possession of Mr. Colling 20 years, who purchased his original cow from Stanwix, of the agent of the Duke of Northumberland, and called her Dutchess."

Mr. Bates has retained in his posession all the females of the descendants of this heifer. The record of the untiring zeal and perseverance displayed by Mr. Bates and many others in England in the improvement of their herds, should stimulate the breeders of cattle in this country to renewed perseverance. There is now in this country some of the best breeds of cattle that England possesses, and we can have more; and no farmer who has the means at command, could make a more profitable use of those means than to purchase at the present prices some of the best improved breeds for his farm, and when he has them pay that attention to their breeding which he should do, and he would find his own interest eventually promoted, and would have the satisfaction to reflect that he was contributing his aid in advancing the great interests of husbandry.

Truly yours, &c. GEO. VAIL

Troy, Jan., 1846.

INDIAN CORN CULTURE AT THE SOUTH.

L. TUCKER, ESQ.—This letter is particularly intended for the perusal of the planters in the southwest. If there be any particularly successful in making large crops of corn per acre, say in a field or crop of one hundred acres or more, that will average all over, say thirty bushels to the acre, I should be much gratified to see a statement in the Cultivator, of the whole process of making said crop; first, the preparation of the land; the distance in planting observed; whether in hills or drill; one stalk or two stalks to the hill; and if drilled, the distances, &c., observed—what manures are used, and if cotton seed, how applied; on the surface or below; and an exact account of the plowing and hoeing at each working given to the corn. It is thought by many that making corn crops is a task so easy, it requires but little attention, and no doubt but the above inquiries will startle some, thinking the questions asked were already known to any who had made five crops. A great deal is said here about making corn of late, and a great deal more has been said to have been made than really has, for no planter in my knowledge knows for certainty what he has had housed; all is guess work, and what is certain, the corn never holds out in one fourth of his calculations. It is gathered and housed unshucked. The only basis for calculations are the wagon loads, no two men agreeing on what the wagon contains; and last, but not least, the acres in the fields planted are all guess-work. As such, one is not far wrong in surmising that from beginning to last, all is guess-work and uncertainty; nothing based on certainty or facts.

Our lands are fresh and strong, and with proper cultivation they ought to be made to average at least thirty bushels of corn to the acre. For my own part I have heretofore been injured by crowding too much; our climate being too hot, it has invariably fired. I have manured highly with cotten seed; distance $3\frac{1}{2}$ by $3\frac{1}{2}$ feet one stalk, and 5 by 5 feet two stalks, which shared the same fate. It appears to me that in strong lands well manured, corn should stand these distances and do well; nevertheless the results of the last two years have proven disadvantageous. My first plowings have been deep; first siding the corn with a skooter, and breaking out the balk with a turn plow; the last plowings very light, depending on good hoeing, dirting the corn with the hoe. My lands planted are porous earth, light soil, and will yield on an average, eight hundred pounds of cotton per acre, unmanured.

In conclusion, if there are any planters who do make for certain, thirty bushels of corn to the acre, all round,

in a crop from one hundred to one hundred and fifty acres, with the manures at hand on our plantations, they will please publish in the Cultivator the whole process of so doing, and much oblige A YOUNG PLANTER.

Eufalla, Alabama, 1846.

PREVENTIVE OF THE POTATO ROT.

MR. EDITOR.—It appears to me that the attention of your correspondents has been directed more to the *cause* or nature of the potato disease, than to any specific remedy. Some have ascribed the cause to unusual dews, fogs, heat of the sun, small insects, or parasite mushrooms. We may, I think, safely conclude that the disease is entirely atmospherical, and as *inexplicable* as epidemics that effect the human or animal system. If so, then the only object would be to place the vines in a state in which they would not receive the disease. Thus the ravages of the wheat fly are avoided by sowing earlier than usual, and also rust in wheat by sowing early on elevated lands.

As it respects the numerous *preventives* that have been suggested, none of them appears to be of any general utility. The strewing on ashes, lime, or plaster; the cutting off of the tops; the drying them in the sun, before putting them into the cellar, are only laborious, and at best, partial remedies. The suggestions of a gentleman fiom Virginia to plant early, and *at a certain depth*, on light, elevated soil, and to cover the vines two or three inches with leaves, would be, I think, of no general utility, except the early planting. For I find by observation and extensive inquiries among farmers, that potatoes are affected in every variety of soil, and that every kind of potato is subject to the disease; that is, the same kind will be affected one year and not another, and on all varieties of soil. From these facts, I have concluded that it is not in the *kind* of potato, or *state* of soil, but in the *time* of planting, or rather, *state* of the vines when the epidemic appears.

Therefore, *assuming* that the disease is in the air, and that vegetables derive by far the greater part of their nourishment and substance from this element, I conclude that the disease is absorbed by the vines, *when* they are in a *state* to receive it, and by them conveyed to the potato among nutritious properties.

As to the time the disease appears, much will depend upou the temperature of the climate where the potato is planted, and the *period* of the maturity of the vines. In Vermont, I conclude that the disease appears from the middle of August to the middle of September, or *when* we begin to have heavy dews, and damp, chilly nights. Then the leaves become slightly struck with rust or blight. This kind of weather produces rust in wheat. But the common potato rust, which comes in July or August, must not be taken for the disease, for rust of potato tops is not a new thing.

Now, in this region, the tops of *early* planted potatoes generally become so far matured in the fore part of September, that they cease to absorb the atmospherical properties. Hence, if this *transition* takes place before the disease has been conveyed to the roots, the potatoe is safe. I have been led to thus fix the time of the appearance the disease from practical observation. I planted six kinds of potatoes on separate plats in 1844, all on good warm soil. Three of the kinds were planted about the last of April, and the others about the last of May. The *tops* of the first three plats were partially *dry* by the first of September—the others, not until the first of Oct. The first plantings were free from the disease; the last were greatly affected by it. I tried the the same experiment on six kinds last year, and the result was precisely as the preceding year. A neighbor planted the early kidneys in April last; the tops were dead in August. Some of the potatoes remained in the ground until Nov. They were perfectly healthy. He planted, from the *same* lot of seed, about the first of June, a small patch near his barn, the tops of which grew rank, and were green until killed by the frost in October. The potatoes were greatly diseased. Since then, I have ascertained that the tops of those potatoes that have proved to be diseased were generally green in September, or at least at the time of digging. It does not, however follow that every field will be affected where the tops are thus immature. I have found two exceptions in fifty cases. In one case, the potatoes were planted in July, and were so thrifty in September that the disease did not affect them. In like manner human constitutions are not *equally* in a condition to take at one time the *same* disease. In the other case, the potatoes, being planted in a high frosty region, were killed by a frost in the fore part of September, before the disease reached the roots. Hence very early or very late planting will escape the disease. But early planted potatoes are decidedly better for the table or for stock than late planted unripe ones. Therefore, let *all kinds* of potatoes, except those that are *very* long in coming to matuuity, be planted early, (for the climate where they are planted,) that the vines may partially ripen before the time of the appearance of the disease. It is no matter what the kind of soil is, or the kind of potato, if neither will greatly prolong the maturity of the vines. But avoid planting near barns, where the soil is exceeding rich, or in low, wet places. Observe these rules, and we think that in usual seasons, from 200 to 300 bushels of good healthy potatoes per acre, will be obtained.

This process may also save the potato crop in Ireland. I am assured by emigrants that potatoes for the summer market are planted early, and are ripened in a pleasant, genial season, while those for winter use are not planted until may or June, for the sake of a long growth, and a larger yield, which exposes them to the disease.

KITTREDGE HAVEN.

P. S. To have large thrifty vines in June, through the influence of spring or summer showers, spread in March or April your *entire seed* on grass plats, the south side of buildings, and cover them with straw, or blankets, during frosty nights. The sprouts thus obtained will accelerate vegetation, while celler sprouts retard it. *Shoreham, Vt.* K. H.

CORN MARKER.

MR. TUCKER—Herewith I send you a description of a corn marker which I have used for several years, and which I think works much better than the kind I have generally seen in use, especially on stony land. Very likely the principle may have been adopted by others, but I have never seen one except my own. Instead of pins or teeth, I use *runners*, made of hard wood plank, about three feet long, and eight or ten inches wide. In constructing it, take a four inch hard wood scantling of the required length for four runners, and saw in ganes about an inch deep, just the thickness of the runners—then saw ganes into the runners about one foot from the fore end, two inches deep, and wide enough to let in the scantling. These ganes must also be made so that the runners and scantling will drive together tight. Then put a three-quarter pin through the scantling, and well into the runner, and they will not be very likely to separate. Then with a large auger put a pair of handles through the scantling, of sufficient length to raise the fore end of the runner by bearing on, in case of coming in contact with a tight stone or other obstruction. A tongue or shafts may be attached to the two middle runners or to the scantling in any manner most convenient, only it should be firm, so as to draw steady. The runners should be square at the fore end (and not turn up like a sled runner,) which will enable them to remove all loose stones and such like obstructions, instead of running over them or round them, which is the great objection to those constructed with teeth. The same principle is equally applicable to markers for turneps, carrots, &c.

The handles may be supported by putting a rail or something of the kind across the top of the runners for them to rest upon. CYRUS INGALLS.

New Hartford, Feb. 11, 1846.

FAT-RUMPED SHEEP.—(Fig. 23.)

THE AMERICAN SHEPHERD,

BEING a History of the Sheep, with their Breeds, Management, and Diseases: Illustrated with portraits of different Breeds, Sheep-barns, Sheds, &c. By L. A. MORRELL.

We announced this work some months since, in advance of its publication; but since its appearance, have not until now had the opportunity of noticing it as its merits require. The book contains a large amount of information, acquired from various sources, in relation to the subjects of which it treats, and we think it ought to be in the possession of every man in the country who keeps more than half a dozen sheep. It embraces 437 pages, and is divided into chapters, under the following heads: Properties of Wool; History of Sheep; European Sheep; British Breeds; Sheep of the United States; Summer Management of Sheep; Winter Management; Breeding and Crossing; Structure of the Sheep; Surgical Observations. The following extracts from the chapter on Winter Management, will be seen to contain sound practical observations:

BREEDING EWES.

"This portion of the flock demand no especial attention beyond a full measure of food, until the approach of spring. The course of management will depend on the time of yeaning, which, if fixed for the month of April, they will require a large measure daily through March of potatoes for the assimilation of milk. In addition, nothing better can be supplied them than a half pint each of wheat shorts, mixed with a little barley or oatmeal. Oil-cake and corn meal are not so suitable, as they do not afford as much *casein*, the only nitrogenized element, as the reader has been informed, of milk. Their fodder through the winter should be of a miscellaneous character. Pea and buckwheat straw are highly agreeable to them, especially the former, which, from its succulency, is well suited to their situation.

"The reader is referred to the correspondence in the Appendix for many valuable hints on the management of breeding ewes, when the yeaning takes place in April. In conclusion, comfort, quietness, and generous feeding are cardinal points of attention with breeding ewes, through the whole period of gestation."

HOSPITAL FLOCK.

"This is the general appellation of such sheep as are in low condition, proceeding either from poor keep, or temporary illness.

"The attentive and well-ordered sheep husbandman will not be troubled with many of this class, for he will not overstock, neither will he permit any to remain on his hands till they have become too old; thus few will enter the "poor house" to reflect unskillful management. It is scarcely necessary to say, however, that every good flock-master will provide a place for the reception of sheep under consideration, as often, in spite of his humane care, disease will make its way to some individuals, which, in that event, require removal from their strong and healthy comrades, and treated accordingly. After the disease is subdued, their diet should depend much on the character of the malady. As a general rule, their food at first should not be of an exciting nature, especially if the disease was seated in the stomach, or intestines. But all suitable advice in this regard will be found in the history of diseases. When a sheep is seen declining in flesh, let it be removed forthwith to the hospital, and after a few weeks perhaps it may resume its place in the flock from whence it was taken; this is often so, if the removal is instant in the early stages of decline. Variations of the food will greatly contribute to restore invalids, as well as those in poverty of flesh."

The cut at the head of this page is given in Mr. Morrel's book, and is a correct portrait of a "fat-rumped" Persian ram, which belonged to the Zoological Society of London. There are several varieties of the fat-rumped sheep, but we have not space to go into a particular description of them. Most of the sheep of northern Asia are of this description. The manner in which they accumulate fat is a striking peculiarity of the race. The accumulation which gives rise to the name, commences about the loins, and swells gradually into a large mass towards the rump. The soft oily fat which constitutes this excrescence or fat-rump, sometimes weighs in a single sheep from 20 to 40 pounds—the whole carcass weighing not far from 200 pounds. There is both a horned and polled variety of the fat-rumped sheep. The figure is of one of the latter, in which variety the accumulation of fat on the rump, is not of the enormous size spoken of.

SMALL FARMS IN FLANDERS.—It is well known that Flanders is one of the best farming countries in the world, if not the very best. The farms are small, not averaging more than 50 acres each. Some are held on lease, others not. The leases are three years, or some multiple of three, up to fifteen.

ORCHARDS AND ORCHARD FRUIT.

A request for information on this subject from Wm. H. Burritt, of Carrollton, Ill., was received last autumn, but being accidentally mislaid, has been deferred till the preseat time. He wishes to know, briefly, the best mode of converting an old orchard of natural fruit, into the trees of the best varieties; a selection of kinds for an orchard of four to six acres, to give a succession of fruit; and the best management in setting out a young orchard.

1. To improve the orchard of natural fruit, it must first be *pruned*, by sawing or cutting off smoothly with an axe, near the upper part of the main trunk, during winter, most of the large branches. A portion of the smaller branches, which are left, may then be grafted with the desired varieties; or the young and vigorous shoots which will spring up the following season, may be budded. The wounds made by the removal of large limbs, should be covered with a warm mixture of tar and brick-dust. When the shoots from the grafts or buds have grown a year or two, the remaining needless branches may be taken off.

To form handsome and convenient trees, the heading down should be done as near as possible to the upper extremity of the main trunk, and from this point the new shoots will mainly issue, and form a much neater tree, than if the old branches themselves are trimmed to bare poles, as is too frequently the case. Fig. 24, represents a tree pruned as it should be; fig. 25 exhibits two instances of bad but very common pruning. Old trees are destitute of young branches at the desired central point; and hence grafts are often set in far out on the side branches, which can never form good tops; to obviate which, prune them in, and wait one season, and there will be an abundance of central shoots, which may be either budded or grafted.

Fig. 21.

In setting out a young orchard, unless the soil is naturally very fertile, it should be made so by manure in the cultivation of crops, either before the trees are transplanted, or immediately afterwards. Very large holes, several feet in diameter, should be dug, and filled, except in contact with the roots, with a third of old rotted manure mixed *very thoroughly* with two-thirds of soil, which, with good cultivation, will make the young trees grow most vigorously, bear young, produce fine large fruit, and soon repay twenty times the cost of digging the holes. Then in setting out, spread out with the fingers carefully all the fine fibrous roots, and when the hole is nearly full, settle the earth through all the interstices among the roots, by pouring in a few quarts of water. The tree must be tied to a stake by a wisp of straw to prevent whipping about with the wind; many trees are lost by neglected staking. The soil must be kept well cultivated with some *hoed* crop for several years afterwards, as potatoes, beans, carrots or ruta-bagas. Corn shades the trees too much.

Fig. 25.

In furnishing a list, almost every cultivator will differ. The following are mostly well known; and if every cultivator who is acquainted with others equally good, will add one-half as many more to the list, the catalogue will not be a long one. Where several acres are to be planted, a greater number of each variety is to be taken. Winter apples and long-keepers, being of more value in market, and also continuing in use several times longer than summer and autumn varieties, a correspondingly greater number of each of these should be set out.

Summer Apples.
Early Harvest,
Summer Rose,
Sine Qua Non,
Summer Pearmain,
Red Astrachan,
Summer Queen,
Early Sweet Bough,
Golden Sweeting.

Autumn Apples.
Gravenstein,
Porter,
Late Strawberry,
Summer Pippin,
Fameuse,
Rambo,
Fall Pippin,
Jersey Sweeting.

Winter Fruit.
Bellflower, (yellow,)
American Golden Russet,
Rhode Island Greening,
Swaar,
Esopus Spitzenburg,
Jonathan,
Peck's Pleasant,
Tallman's Sweeting,
Danvers' Sweet,
Ladies' Sweet,
Baldwin,
Blue Pearmain,
Hubbardston Nonsuch.

Long Keepers.
Roxbury Russet,
Northern Spy,
Newtown Pippin,
Black Gilliflower.

AMERICAN HEDGES.

A few weeks since, we noticed some instances of good and successful management of hedges. It has been since suggested to us, that a very important operation was too briefly noticed to be intelligible to many readers. This was *Laying* and *Plashing*. We have noticed many hedges which were sadly inefficient from thinness and gaps near the bottom, which might thus have been made impenetrably strong.

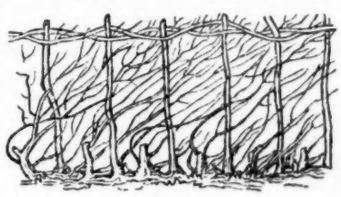

Fig. 26.

The mode of performing this work is represented in the annexed figure. It is usually done in winter. In England, well-managing farmers divide the whole length of their hedges into about twelve parts, and plash one of these parts each year, thus keeping up a system of successive renovation every twelve years; though hedges are sometimes known to continue in the best condition twice that length of time. The operation consists in first clearing away briars, small branches, &c., and cutting off the needless branches and stems, leaving straight upright stems in the middle of the row. The best and straightest of these, are selected for live stakes, and their tops cut off at a height of 3¼ or 4 feet. They should be, if possible, at equal distances of about two feet; but as they cannot always be had so regularly distributed, occasional dead stakes driven into the ground become necessary. The roughest are then cut out, leaving a proper number for plashing among the upright stakes, to form a kind of rough wicker work. These are then laid hold of, and bent down in one direction, and a hack is made into them near the surface of the ground with the knife or bill; the pressure with the right hand, and the stroke with the left, being at the same moment, the stem is bent partly down and cut partly through, and cannot regain its former position. They are then, as the work proceeds, woven backwards and forwards among the stakes, in a slanting direction.

When a portion of the hedge is thus treated, slender sticks or poles are cut, and wattled in among the stakes, within about an inch of the tops, by twisting backwards and forwards, and crossing them on alternate sides of the stakes; the second set of poles overlapping the preceding, so as to bring all to a stiff straight line. The live stakes, in consequence of being surrounded by the hedge, are apt to send out shoots thickly at the top, and not below, unless prevented by being cut half through at the ground. When finished, the refuse is to be gathered up and removed. Strong leathern mittens, with long sleeves, are needed by the man who does the work.

MERINOS IN VERMONT AND NEW HAMPSHIRE.

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MR. TUCKER—I submit for the perusal of the readers of the Cultivator, a few notes taken in a recent tour across the Green Mountain state into N. Hampshire.

Monday, Dec. 29th, 1845, I started in company with Mr. D. A. BENNETT, of Bridport, for the purpose of visiting some of the most noted flocks of sheep in Vermont, and one in particular in New Hampshire. The first flock of importance that I shall stop to notice was that of Mr. Merrill Bingham, of Cornwall. In passing his place his man was approaching the sheep yard with a bushel of potatoes on his shoulder, which he scattered along on the snow, then slipped the bars, and out came thirty or forty noble fat ewes, "pure Paulers," as he termed them, and set themselves busily at work devouring the potatoes; they were not cut, but whole, and that appeared to be no obstacle in the way of the sheep as they were very soon disposed of. Mr. Bingham then showed us a buck of the Rambouillet breed, recently from the flock of Mr. Collins, of Connecticut.—He is carrying his old fleece, a practice which is always to be condemned in my estimation, as injurious to the animal, and misrepresenting their true condition. However, he is a very good sheep in appearance, covered with a coat of wool that is soft and even. From Mr. Bingham's we drove to Mr. Lincoln's in Brandon, where we found some very good sheep which he has selected from some of the most noted flocks in Connecticut, New Hampshire, and Addison county, Vt. We called at Mr. Hinds', near by, but finding him absent, we took a hasty survey of his splendid Rambouillets, also a very fine colt in his yard, and passed on to Pittsford.

Dec. 30th. Called on Mr. Wm. Barnes, of Rutland, where we were treated with great attention and kindness, and shown some of the best Saxon sheep that I have ever seen out of Addison county. Many of them, Mr. B. informed us, were from the flock of the late H. D. Grove, Esq., of Hoosic, N. Y., or their direct descendants. The shape of their bodies and the size of their limbs are strong indications that they possessed sufficient constitution to enable them to endure the severity of our long winters; their wool is long, fine, clean, being free from yolk, and shear on an average $3\frac{1}{4}$ lbs per head, worth at least 50 cents per pound to the manufacturer. Mr. Barnes has one of the best houses in the country, built of brick, and his out buildings and fixtures for the care and accommodation of his sheep are not inferior to the comforts and conveniences he has provided for himself and family.

From Mr. Barnes' we drove to Mr. Kelley's, a short distance from Rutland village, where we found some very good sheep, but Mr. K. being from home, we left his place and drove to Mr. Hull's, in Wallingford. Here we saw a superior flock of sheep; better flocks, take them from old to young, (and his flock numbers from 400 to 500,) are "few and far between." After dining with Mr. H. we left Wallingford and crossed the mountain to Ludlow. The next morning, Dec. 31st, we drove through Proctorsville and Cavendish, all within 4 or 5 miles of each other, and each containing a woolen factory. We reached the Connecticut river about four miles below Windsor. Shortly after passing the village, we saw in two or three different places the operatives at work on what is called the "Central Railroad." Surely Vermont has at last struck one blow for internal improvements; what ten years will do for her is veiled in the future, but "we Yankees" prophecy great results.

At Queechy village, in Hartland, we crossed the Connecticut, and soon arrived at the mouth of Mascoma river, in N. H., which brought us on to the line of Concord road. Here we found them making railroad in earnest. From the Connecticut river to Enfield, a distance of ten or fifteen miles, we counted clubs of 12 to 25 men at short intervals, engaged in leveling the hills and constructing their embankments.

Arrived at the Shaker village in Enfield, we found many things that attracted our attention and more than that, an abundance that is capable of feasting the eye of the agricultural tourist. The village is composed of three families. We called at the trustees' office of the middle family, where we were received in a very friendly manner by the trustee, Caleb M. Dyre, and treated with all the hospitality characteristic of that order of people. On looking about their premises but a short time, we were compelled to admire the order and arrangement of their dwellings and out-buildings.

Simplicity, neatness and economy appeared to prevail throughout the whole establishment. Their buildings are principally built of wood, large and roomy, without cornice, which gives them rather a novel appearance at the present day, and mostly painted yellow. In the rear of the trustee's office, and about the centre of the buildings occupied by the middle family, stands a large building, four stories above the basement, composed of granite. This we were informed was used as a place of lodging and dining; though we did not think it expedient, from the shortness of the time we had to spend here, to be very inquisitive respecting their religious tenets, we supposed it also to be their place of worship. This family contains 150 persons.

Jan. 1st, 1846. Rose at the ringing of the bell at half past 4. Before the twilight of the morning had lit up the eastern horizon, the streets, yards and shops were all alive with industry; each with a light in hand appeared to be attending to his own business; some were feeding their teams; some repairing their sleds, while others were busily at work in their respective shops. The greatest industry and neatness appeared to prevail in-doors as well as out. As soon as it was sufficiently light, we visited first the cattle yard, where we found eight as fine pair of working oxen, yoked and ready for business, as I ever saw standing together in one yard. Color mostly red, and red and white, a cross of Devon, Durham and native. Many of them were fat enough for first quality of beef, soft coated, rich and mellow handlers. We were next shown a two year old bull, and two bull calves; they were all large and fine animals. The trustee prefers the Durhams for cows and the Devon for oxen. We next visited the sheep yards, where we found a flock of strong, healthy looking sheep. They are of the Guadaloupe breed, and said by the trustee to have been bred pure. They are unquestionably great shearers, being clothed with a thick coat of wool, which was of good length, and many of them we found covered with very fine wool. On inquiring the weight of fleece and prices obtained for their wool, we were informed that they were the owners of a factory; that they manufactured more wool than they grew, and in consequence of manufacturing their own wool they sheared without washing. But it is my opinion they will shear as many pounds of clean washed wool as any breed of sheep I have ever met with. They appeared no ways anxious to part with any of their sheep, but after some conversation we prevailed on them to sell us six ewes and a buck, which we put into our sleigh, already prepared for the purpose, and brought away.

But before leaving the Shaker village, I wish to give you a description of their mode of making fence; first, their posts are of granite, which are split as true and as straight as a chestnut rail, these being drilled for a bolt at top and bottom, are firmly planted in the ground at a proper distance from each other according to the length of their fence boards. In the next place the boards, 3

or 4 in number, according to width, are placed upon the posts, then with a cap that reaches from top to bottom, with an iron bolt and nut through the post and each end of the cap, secures the boards firmly to the posts. We also noticed in several places on both sides of the Connecticut river, long strings of fence constructed in this manner, which I think must be quite durable, if not cheap.

The thought struck me as I passed some of these granite post fences, what a convenience it would be to have some of these granite hills scattered over the wide prairies of the west.

We returned by the way of West Windsor, where we bought of Giles Wait, Esq., 20 superior merino ewes which we left for a second load; from this place we drove in the evening ten miles to Weathersfield, put up at Danforth's Inn, and called on the Hon. Wm. Jarvis half an hour or so, made known our business, heard some remarks upon the subject of importing Spanish sheep, received an invitation to call the next morning and look at his sheep, which may form the subject of another communication. J. N. SMITH.

Vergennes, Vt., Feb. 4, 1846.

DWELLING HOUSES.

MR. TUCKER—In the numerous plans of houses which have appeared in the Cultivator for two or three years past, I have seen much to admire and some things to disapprove. Health, comfort, convenience, elegance, should be studied; but the more important should not be sacrificed to the less important parts. For instance, in the plan of the elegant and showy residence of Mr. Hyatt, in your January number, there is a spacious drawing room, &c. &c., but up stairs there are two bed rooms 7 by 9½ and 7 by 10 feet.

Sleeping rooms should always be as large as possible, and it is infinitely more important that attention be given to these, than to those more showy rooms that are seldom occupied. But in the plan above alluded to, there is a still smaller room, 6 by 7 feet, designated as the servant's bed room, and that, too, connected with "the steam and unpleasant odors" of the kitchen. I would suggest that this room be used for a *store room*, without which no house is complete, and that the servants be allowed a more healthy lodging.

My better half, sitting at my elbow, says she would like to have some of your correspondents furnish a plan of a house or cottage, suitable for a large family, in which all the rooms should be on one floor; for, she says that running up and down stairs makes the women look old while they are young, and that a cellar kitchen is an abomination. And further, she thinks that what little scolding and fretting is ever heard among them, is owing very much to the ill judged plans of their houses. So much for her opinion and mine about houses.

MR. QUINCY'S ADDRESS.

The address of Mr. Quincy, in your last number, I have read with unmixed pleasure. It is so simply yet elegantly expressed, so true to nature, so confirmed by universal observation and experience, that I involuntarily wished it were printed in letters of gold, and sent to every family in the United States. Let farmers read it, and learn not only to be content with their condition but to see that they move in an elevated sphere, and occupy an enviable place. Professional men of every name, merchants, and men of every class, may in the perusal of it, derive both pleasure and profit. I would suggest the propriety of its being printed in the form of a tract, with a view to its wider circulation. If no better way be found, let the American Tract Society adopt it, and scatter it broadcast over the land.

PUMPKINS.

For the encouragement of others to go and do likewise, I would state that last season I planted a piece of corn for table use, just 3 rods in width by 5 in length, and as usual, planted one or more pumpkin seeds in every hill. The corn was tolerably good, but the pumpkins were so large and so abundant, that I carefully counted them when they were gathered, and found 824. The ground was so nearly covered with them that they became the subject of remark by most passers-by, and the inquiry was often made how so great a crop was produced.

Something over a year since I had 120 barrels of night soil put upon three-fourths of an acre (of which the above piece was a part) which, after being mixed with ashes, lime, and stable manure, was thoroughly incorporated with the soil; and this, I believe, was the immediate cause of the extraordinary crops which I gathered. But there were plain indications in the fall that the manure had only begun its work, and hence I am expecting a more remarkable yield from that land the ensuing year.

Night soil is one of the strongest of manures, and farmers greatly overlook their interests when they neglect to avail themselves of it. In England it is held in such high estimation, that a class of men crave the privilege of collecting it from the cities and large towns, without expense to the owners of the premises, and after making it into a compost, sell it to farmers at very high prices. They often have scores of orders for it, long before they have ability to supply, and the demand is constantly increasing.

POULTRY.

In Mr. Bement's valuable Book on Poultry, two facts are omitted, by which I have been led astray. One is, that the eggs of the Muscovy Duck require to be set upon *five weeks* in order to hatch, instead of *four*, as in the case of other ducks. The other is that the Pea Hen does not lay till three years of age. H. A. P.

Buffalo, January, 1846.

TO DESTROY QUACK GRASS.

MR. TUCKER—When I took possession of the farm on which I now live, I found several acres of one field *very thickly filled* with quack grass. Indeed I think it was the most perfect mat of quack grass I ever saw. It had been the previous year planted with corn. Acting upon the well established principle that "plants cannot live without breathing," or in other words, that the roots must die unless the tops are suffered to grow—in the month of April I plowed the ground with a shallow furrow, and a few days after gave it a thorough harrowing. As soon as the blades *began* to appear above the surface of the ground, I plowed and harrowed again. This process was repeated seven times, and at each time the plow was run a little deeper than before—the last plowing being about ten inches deep. The quack grass had all disappeared, and not a vestige of it has since been seen.

The plowing was not *deepened* to facilitate the destruction of quack, but to give the ground a thorough summer fallowing and fit it for wheat, with which it was sown about the fifth of September, and as some persons fear that much plowing injures land, I will state the result.

The field contained 48½ acres, all of which was summer fallowed by being thoroughly plowed from three to seven times. The growth of wheat was large on the whole, but largest on the portion which was plowed most. The whole field was injured by rust—the largest growth being injured most, as it was considerably lodged. The yield of wheat was 1540 bushels. The variety was the "improved white flint." E. MARKS.

Tyler P. O., Camillus, Dec. 22, 1845.

GUANO POISONOUS.—The Dublin Farmers' Gazette mentions the case of a man who lost his life by holding a corner of a guano-bag in his mouth, by which a portion of the dust was drawn down his throat.

POTATO WASHER.

THE extensive prevalence of the potato disease in England, has called out ingenuity in combining machines for washing the roots preparatory to their manufactory into starch flour. One of the best is represented in the annexed figure, and may prove useful to those who adopt the very proper practice of washall their roots, before giving them to their domestic animals.

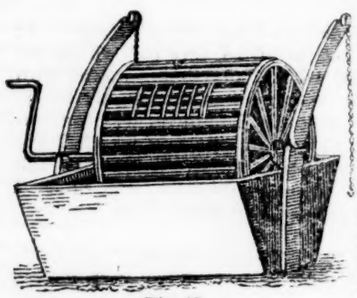

Fig. 27.

It is like the cylinder churn, with cross bars so close, that none but the smallest potatoes can fall through. The trough is filled with water, and by the revolution of the cylinder, the roots are soon made clean. Chains fastened to the upper extremities of the inclined posts, are then hooked into eyes in the axle of the cylinder, and the rotation proceeding, the cylinder is lifted out of water, and rolling up the posts, is brought by the inclined position of the latter, directly over a wheelbarrow or hand-cart placed beside the trough, when the trap door being opened, the roots are at once emptied into it.

Carrots and all other roots given to horses, should without fail be first washed clean; and the practice should not be omitted for cattle and sheep.

THE POTATO DISEASE.

WHILE it can only be tiresome to every reader to publish the numerous conflicting and unsatisfactory statements and opinions on this subject, it may perhaps be interesting to present to our readers a brief abstract of the communication of the government commissioners to Ireland. This commission consisted of Professors KANE, LINDLEY, and PLAYFAIR, who stand high among the first chemists and physiologists of Europe. At the request of the British government, they made a laborious and thorough examination.

In adverting to the theory, of the difficulty being originally caused by a fungus of the genus Botrytis, which is supported by the fact that it is always or nearly always found with greater or less distinctness in diseased specimens, they give it as their decided opinion that this theory as yet remains at best doublful; among other reasons for this they say, "We are also unable to reconcile with the theory of the potato disease being *caused* by parasitical fungi, the remarkable fact, that, in its present form, it is certainly of modern origin. That it may always have existed is possible, though of this we have no proof; but at least there can be no doubt that it has only manifested itself to any considerable degree, within the last few years. We cannot suppose the Botrytis, which observers find to be the kind of fungus that attacks the potato, to be of recent creation. We must assume it to have been co-existent with the potato itself; and therefore we must conclude that some recent causes have come into operation favorable to its increase to the present alarming degree."

Without pretending to decide the cause, they suggest its connection with the cold, cloudy, and ungenial weather of the past season in the north of Europe; they allude to the fact that the potato is a native of a warm, dry, and sunny country; and that the disease is unknown at Genoa, Marseilles, and other places of southern Europe. Among the mass of conflicting evidence they have obtained, they consider the following facts established:—

"1st. That potatoes planted early in the season are more healthy than those planted later.

"2d. That the crop has suffered less in dry, elevated, sandy districts, where the inflence of the season was mitigated by the slowness of growth, or compensated for, by the natural warmth of the soil.

"3d. That the late varieties of potatoes are more diseased than the early ones.

"4th. That the present disease seems to be confined to the northern parts of Europe and North America, and to be unknown in the countries to the southward."

They recommend autumn or early winter planting, crops so treated having been unusually productive, and remarkably free from disease. This would do well for the mild winters of England and Ireland, but would not answer for the northern states of America. The depth planted was about six inches.

They disprove by facts the opinion that old varieties are more affected; but state that some varieties are much tenderer than others, and remark that the "Irish cup" has best resisted the attacks of the disease. They recommend sound seed for planting, or if diseased, that they be rendered green in the sun; that fresh gronnd be chosen, or that where a diseased crop has not been taken: and that the land and the seed both be well limed.

The preceding are the principal points of their report, which was made late in autumn, and in which they admit that a great deal is involved in uncertainty. They are to pursue their investigations further.

CULTURE OF SPRING GRAINS.

SPRING WHEAT.

There are many sections where spring wheats are the only varieties that can be cultivated to advantage. In all places where snow accumulates to a great depth, the success of winter wheat is rendered uncertain, owing to the liability of its being winter-killed. In such cases, the farmer resorts to spring wheat as the best substitute at command, and in many cases it gives a return, which, both for quantity and quality, leaves no cause for dissatisfaction. Spring wheat is said to contain a larger proportion of gluten than winter wheat, and it has hence been inferred that bread made from the former is more nutritious. According to the analysis of Sir H. Davy:

	Gluten.	*Starch.*
100 parts of the best Sicilian wheat contained,.....	21	75
100 parts of spring wheat, of 1804,.....	24	70
100 parts of good English wheat, of 1803	19	77

Preparation of the soil, quantity of seed, and time of sowing.—Spring wheat is usually cultivated on land that has been occupied the preceding year by some hoed crop—corn, potatoes, &c. Where there is no danger of the attack of the fly, which works in the head, (the *Cecidomyia tritici*,) it is best to sow the crop as early as the state of the ground will admit, or as soon as it is fairly free from frost. One good plowing is sufficient—in fact we have known excellent crops produced by working the ground thoroughly with a cultivator harrow, the feet or teeth of which penetrate the ground and pulverize it to the depth of several inches. Manure is not usually applied for this crop. Long or unfermented manure tends to rust the straw, and on this account it is only applied to the crop of the previous year, and then it becomes so far decomposed as to be in a proper state for the wheat. The seed is usually sown on the furrow, and well harrowed in. The quantity sown, per acre, is generally two bushels.

Varieties.—The kinds held in the greatest estimation in this country, are the Black Sea, Italian, and the Tea wheat. Of these, the Black Sea is the most hardy, and generally gives the best yield. This valuable variety was first brought into notice in this country by PAYSON WILLIAMS, Esq., of Fitchburg, Mass., some twenty-five years since, and it has now become widely disseminated. It is said to have been originally brought from the shores of the Black Sea, in Asia. The Kennebec (Me.) Agricultural Society, have made several importations of wheat from the Black Sea. The impression prevailed a few years since that the kind introduced by Mr. Williams had declined in productiveness, and the society

for this reason thought it advisable to make a new importation. After one or two failures, we believe they succeeded in obtaining a kind supposed to be in some respects superior to that first introduced. It should be remarked, however, that in some sections, and under good management, the Black Sea wheat has considerably improved by cultivation in this country. The yield of this variety varies of course with the soil and season, but perhaps twenty bushels per acre may be said to be an average crop on medium soils. We have often known upwards of thirty bushels grown per acre, and in a few instances have seen well authenticated statements of fifty bushels per acre having been produced.

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OATS.

Oats are more hardy than wheat, and will grow on many soils not suitable for that grain. In mountainous sections, where the soil is too wet and cold for any other kind of grain, they frequently give excellent returns, and it is very common also, that the weight per bushel is greater in such sections than in those favored with a milder climate and more fertile soil. In many parts of Ireland, and in the greater portion of Scotland, the oat crop furnishes the only reliance for breadstuffs; oat meal, in various forms, being the chief article of subsistence.

Oats are undoubtedly far richer in nitrogenous or muscular matter, in proportion to the weight, than wheat. A comparison, according to the analysis of Prof. Johnston, shows this. One hundred pounds each of fine wheaten flour and shelled or hulled oats contain:

	Wheat.	*Oats.*
Muscular matter,.....	10 lbs.	18 lbs.
Fat,.....	3 do	6 do
Starch,.....	50 do	65 do
	63 lbs.	89 lbs.

This may serve to give some explanation of the fact that the muscular power of horses is greater when fed on oats than when kept on any other food; and it serves also to lessen our wonder at the athletic feats, corporeal strength, and power of endurance shown by the stalwart Highlander, reared on this simple but nutritious fare.

Preparation of the ground, quantity of seed, and time of sowing.—The earlier this crop can be got into the ground the better. One plowing, if well done, is generally sufficient. The seed may be sown on the furrow, not less than three bushels per acre. Three bushels is the quantity we have formerly been in the habit of sowing per acre; but we have observed that nearly all the extraordinary large yields which have been lately obtained were from a larger quantity of seed than is generally used, and we should not hesitate to use three and a half bushels.

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PEAS.

Peas in many parts of the country are a valuable crop. Like other leguminous plants, they rather ameliorate than exhaust the soil, and in this respect furnish an excellent preparation for other crops. In some districts they are adopted as a "green fallow" for winter wheat, with excellent effects, as they leave the ground clean and mellow.

Peas are highly nutritious as food for animals. The proportion of nitrogenous or muscular matter they yield on analysis, is much greater than is given by any kind of grain, and they are often used, either by themselves or combined with oats, for fattening swine, as well as for feeding horses. They are also used to a considerable extent in domestic cookery, forming very nourishing and palatable soups. In some countries they are also mixed with grain, ground and made into bread.

Peas are sometimes sown with oats, in the proportion of one-third peas to two-thirds oats. A variety of peas which has rather a light vine is preferable, as the ranker kinds are apt to overrun the oats, and lay too close on the ground, but the straw of the oats will hold up the lighter ones, so that both the oats and peas will fill well.

Preparation of the soil, time of sowing, and quantity of seed.—A loamy soil, rather inclining to clay, is best adapted to peas. Early sowing generally gives the best crop. Very hot weather is unfavorable to their filling, and it is hence advisable to have the crop well advanced before the hottest part of the season comes on. A sod which was plowed the previous autumn, well harrowed, makes a good bed for peas, but any good sward well broken up and mellowed, will answer—and if sod ground cannot be had, that which has been under cultivation one or more seasons may be taken. No manure is generally needed; but if any is put on, it should be a small quantity of that which is thoroughly rotted, spread on the furrow and harrowed in. A large quantity of manure, or that which is in a green state, makes too great a growth of vines and tends to blight.

The quantity sown per acre varies somewhat with the kind of pea, some being of a more spreading growth than others, and requiring less seed. It is usual also to sow a larger quantity of very large peas, than of small ones, because the number of peas or germs is greater in the same measure of small ones. The large marrow-fats, for instance, are double the size of some others. From three to four bushels of seed per acre is the quantity usually sown.

The covering of the seed is best performed by a small plow, or by a set of small plows in a frame, called a "gang-plow." It is difficult to bury peas with a harrow, many being always left on the surface, where it is attempted. A depth of about two inches is the proper one for covering. A good way is to pass the harrow over the field after the peas are sown, which will prevent them from rolling into rows or bunches, and then plow them in with a shallow furrow. The varieties adapted to field culture are the Canada field pea, the marrow-fat, and the black-eyed pea. The yield on good soil is from thirty to forty bushels per acre.

Garden peas, or those for early marketing, should be put in the ground as early as possible. Select warm, dry ground—it can hardly be too dry for *early* peas—and deposit the seed either in rows or broad-cast, as soon as the frost is out. The earliest varieties are the Early Washington, Cedo Nulli, and Prince Albert.

To destroy the pea weevil, (*Bruchus pisi*) which is so troublesome, immerse the peas in water, boiling hot, for two minutes; then take them out and mix plaster, dry ashes, or air-slacked lime with them, till they will readily separate in sowing or planting. No fears need be entertained that the hot water will prevent the peas from vegetating—not one in twenty will be hurt at all.

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BARLEY.

This grain is cultivated in some sections of this country to advantage. It is not, however, very extensively grown. The reason probably is, that on good land for wheat, as much of that grain can be produced per acre, and with no more labor than is required for barley. Still there are some soils and situations not well adapted to wheat, which will produce good crops of barley.

Barley furnishes an excellent food when ground into meal, for fattening swine and cattle, or feeding milch cows, and the whole grain is the best of food for feeding poultry. The meal also makes bread which is used extensively in some countries, and is well relished by those who are accustomed to its use. In this country, however, its culinary use is chiefly for making warm cakes, similar to those of buckwheat, for which it is highly prized by those who have tried it. The grain, when divested of its husk, forms the *pearl barley* of the shops, so much esteemed for soups and broths.

In nutritive properties, barley, as compared with wheat, is stated by C. Johnson, in the Farmers' Encyclopedia, as follows:

	Nutritive matter.
100 parts wheat yield of.....	78
100 parts barley,.....	65

The principal purpose, however, to which barley is appropriated, both in this country and Britain, is the making of malt for beer, ale, &c., a purpose for which it is superior to any other kind of grain. After having been passed through the malting process, the "grains" are used for feeding animals. They are much used in the neighborhood of cities, for feeding milch cows

They tend to produce a great flow of milk, but it is thought their effect is rather injurious to cows of weak constitution, as the grains relax the system, and by highly stimulating the lacteal glands may leave the animal poor.

The *straw* of barley is reckoned preferable for feeding stock to that of any other grain. It is soft and sweet, and cattle which are in their prime, and that neither give milk nor are required to labor, will winter well on this article alone. Sheep will also do well on it with the addition of a few roots, and a little grain towards spring.

Varieties.—There are many varieties of barley. The usual designation is by the number of rows which form the head: thus we have the two rowed, the four rowed, and the six rowed barley. A kind called the Chevalier barley, from the name of the gentleman who first brought it into notice, is in great repute in England on account of its superior productiveness, weight, and, according to the statements of some brewers, its greater quantity of saccharine matter. The late Lord Leicester made numerous trials with this kind of barley, the result of which proved it to be superior in weight to the best of other kinds, by at least ten per cent—its average weight being fifty-seven pounds per bushel. Another advantage, in the opinion of Lord Leicester, which this kind of barley possesses, is the habit of tillering or spreading, by which, he thinks, a saving of half a bushel of seed may be made per acre.

There are likewise two or more varieties of *naked* barley, so called from the grain being detached from the glume or chaff. A *two* rowed kind of this description has been known in England many years, and the writer remembers to have seen it cultivated in Massachusetts upwards of thirty years ago. The cultivation of this kind has been generally abandoned, on account of its want of hardiness, &c. A *six* rowed kind of naked barley is also cultivated in Europe, (and we have lately heard of it in the hands of a few in this country,) which is thought to be greatly superior to the two-rowed kind. C. Johnson, in his Farmers' Encyclopedia, says it is greatly esteemed for its fertility. It is also stated that its cultivalion had been tried in France, where it was highly recommended by M. Mazucco, who states that "it weighs as much as the best wheats, and its quality resembles them so much that it may be used for the purpose of making good bread, and also for pearl barley. In mountainous countries its produce is twenty-four to one." An extract is also given from a communication to the Board of Agriculture by Warren Hastings. He observes: "that it is of the greatest importance to promote the culture of this sort of grain." He adds: "It is the corn that, next to rice, gives the greatest weight of flour per acre, and it may be eaten with no other preparation than that of boiling. It requires no dressing when sent to the mill, having no husk, and consequently produces no bran. It is gathered into the barn, and may even be consumed, when the seasons are favorable, in about eighty or ninety days after being sown; and there is no species of grain better calculated for countries where the summer is short, provided the vegetation be rapid. It appears to be this kind of barley to which we have several times alluded as having been produced by Mr. SPINNER, of Herkimer.

Besides the kinds of barley above enumerated, which are all *spring* varieties, there are several *winter* kinds, which, like winter wheat, are sown in the fall. The best of these is said to be the Siberian winter barley. Whether, however, it would endure the climate of this section, can only be determined by trial. At present we have not known of this variety having been introduced into this country.

Preparation of the soil, time of sowing, and quantity of seed.—The best soil for barley is a warm loam, inclining to sand. If the soil is not too compact, so as to break up in lumps, one plowing will be sufficient; but if hard lumps appear, they must be reduced with the roller and harrow, following each other alternately till a good *tilth* is produced; and in such cases it may be expedient to give a second plowing. If the preceding crop, (which of course should have been some *hoed* crop,) was well manured, no dressing will be required for barley. The quantity of seed varies from three to four bushels per acre—the latter quantity has been generally sown where the best crops within our knowledge have been obtained. It should be sown in this latitude before the first of May, if practicable.

We should have observed above, that one of the principal recommendations in favor of the culture of barley is its exemption from the attack of several insects which in many instances so seriously injure wheat—particularly the yellow worm or maggot, the larva of the *Cecidomyia tritici.* .....

LAYING DOWN LANDS TO GRASS.

In connexion with wheat, oats and barley, clover and grass seed are usually sown—that is, the land is technically, *seeded down.* According to the experience of the writer, grass succeeds better with barley than with the other grains. Oats, on most soils, are less favorable to grass than wheat and barley. The quantity of seed used of the different clovers and grasses, varies much with the nature of the soil, and under the management of different farmers. Some soils are better adapted to one kind of grass and some to another. Timothy, for instance, does not succeed on very loose, dry soils, but is adapted to those more moist and tenacious. Red clover does not do well on cold and wet lands, but will flourish in situations so dry that but few of the true grasses would be able to sustain themselves. It should of course be the object of the farmer, to adapt the kind of plant to the nature of the soil.

For pastures, there is a great advantage in having a *variety* of herbage plants, as the appetite and health of both cattle and sheep is known to be thereby promoted; and there is besides a benefit in having plants which, from ripening at various times, afford successively a fresh growth through a large portion of the season. For hay, also, a variety of plants is preferable, as the hay is thus rendered more palatable, and probably more wholesome, to stock of all kinds; but the kinds of grasses sown together should not ripen at different times, as recommended for pastures. To make hay of the best quality, all the herbage should be in nearly the same state of ripeness when cut.

Where the object is hay, and the soil of a medium character as to dryness, we have used with good results the following mixture:

Of red clover, 8 lbs. or 4 qts.
Timothy, (*Phleum pratense,*) 8 qts. } for 1 acre.
Red-top, (*Agrostis vulgaris,*) 1 bushel }

If the object is only clover as an ameliorating crop, or to occupy the land only one or two years, we should sow no grass seeds with it, but should increase the quantity of clover seed to twelve or fourteen pounds per acre. If the land should be unfavorable to clover, and permanent meadows were intended, we should only sow timothy and red-top—say twelve quarts of the former and a bushel and a peck of the latter. It should be borne in mind that clover is only biennial, therefore when sown with perennial grasses it interferes with their growth only two years; in fact, its growth generally diminishes considerably after the first crop is taken. Timothy and red-top, when sown with considerable clover, are usually seen but little in the first crop; in the second they increase, and after that the clover dies out, (except a root is occasionally brought in from seed,) and the grasses take its place.

For pastures, with a soil of medium dryness, the following would be a good mixture:

Red clover,..... 2 quarts.
White do. ..... 2 do
(If this is produced naturally in the soil the seed may be omitted.)
Kentucky blue grass, (*Poa pratense,*) 8 quarts.
Timothy,..... 4 do
Orchard grass, (*Dactylis glomerata,*) 1 bushel.
Red-top,..... 4 do

On soils too wet for red clover, we should omit that, and increase the quantity of red-top and timothy.

Manner of sowing.—A very common mode in some sections, is to mix the clover and grass seeds together

and sow them after the grain has been sown and once harrowed; but the writer has sometimes adopted the mode of mixing the whole with the grain, sowing all together. By wetting the grain, the clover and other seeds (having been well mixed by themselves) may be made to adhere to it in such a manner that they will be pretty equally distributed over the ground.

A good time to sow clover and grass seeds on land occupied by *winter* grain, is to scatter them on snow in a mild day in March, or in more southern latitudes, at an earlier period.

CULTURE OF RHUBARB.

Only two or three years have elapsed, since the Pie Plant was quite of ordinary size, and some eight or ten stems were regarded as only calculated for one pie. But the improvement in this valuable plant within the past two years, is really astonishing. We have looked with wonder upon several varieties which have lately been introduced into our nurseries from abroad. During the present season, Messrs. Prince & Co., have exhibited before the Horticultural Society, a specimen, the leaf of which was nearly as large as an ordinary umbrella, and the stem long enough for a walking stick. This variety is called the Leviathan, and justly answers to the name given it, for its leaves are enormous, and generally weigh from two and a quarter to two and a half pounds. Myatt's Victoria is an esteemed variety, has monstrous leaves, and under proper cultivation will average two pounds. On the whole, from what we know of this plant, we recommend that the old kinds be rejected, and that cultivators confine themselves to the raising of those the most profitable. We especially recommend the Leviathan, Myatt's Victoria, Dalley's new Scarlet Giant, monstrous leaves, Dalley's Admiral do. do. and the Early Tobolsk, a fine variety, and very early. There may be other varieties equally valuable, but having seen the above in their glory, we noted them down with a view of advising the lovers of this valuable plant, that one root of any of the above kinds is worth more than a half dozen of those ordinarily grown W. R. PRINCE.

Flushing, Feb. 10, 1846.

INDIAN CORN—ROTATION OF CROPS.

LUTHER TUCKER, ESQ.—I send you the following mode of raising corn and system of rotation of crops, practiced by many of the most successful farmers of this town. The corn crop being mostly depended on, by farmers here, who raise grain for market, it is placed first in the rotation of crops.

A piece of meadow or pasture, that has been in grass three years or more, is usually taken for a piece to plant corn. This is manured, if not too far from the barns, in the fall or spring, before plowing the sward—generally the latter—with unfermented manure. It is plowed only once, care being taken to turn it all over. It is then harrowed once or twice thoroughly, which fits it for the seed, except marking for rows. It is then planted between the 5th and 20th of May—the rows usually 3 feet one way, 2 or 2½ the other. It is hoed twice, using the cultivator instead of a plow as formerly. As soon as the corn is well glazed, it is cut up at the roots, and put in small stooks, with 25 or 30 hills in each stook.

Most of the farmers think this the best way, as the grain is heavier, and it dries sooner and better. All the stalks are secured by this mode, which are very valuable for wintering stock. Indeed many of our farmers think the fodder from the corn field is equal in value to the hay the field would have produced if in meadow, thereby making the grain almost a nett profit, except the difference in labor of the two crops.

The yield per acre without manure, ranges from 25 to 60 bushels. When manure is applied, 40 to 80 bushels is obtained.

The crop following corn, is generally spring wheat; as the best crops of wheat are obtained by this course. The spring wheat is sown as early in the spring as soil and weather will admit, after the ground is well plowed. The seed is well washed in brine and limed. It is sown at the rate of 1¼ to 2 bushels per acre. Where the land is wet and springy it is plowed well in the fall; then soon as the frost is out of the ground in the spring, the wheat is sown on the ground, without plowing, it only being harrowed thoroughly. This way succeeds well on moist lands, particularly if following a potato crop. The produce of wheat is generally from 15 to 25 bushels the acre.

When three crops are taken off before seeding, which is the case if no manure has been applied, with the most judicious farmers, the wheat crop is followed with oats. The wheat stubble is turned under carefully, in the fall. The oats are sown after one plowing in the spring, at the rate of two to three bushels the acre—ten or twelve quarts of grass seed, with a sprinkling of clover, is sown after the first harrowing, on the acre. The land then remains in meadow or pasture three years or more, as circumstances require. From 30 to 70 bushels of oats is obtained to the acre. As the produce of the crops depends very much on the situation, condition, previous culture, and the amount of manure applied to the soil, therefore this accounts for the large difference in the product of the above crops. G. W. B.

Earlville, N. Y., Feb. 9, 1846.

ANALYSIS OF OATS.

THE Highland and Agricultural Society of Scotland, offered in the year 1845, a premium of fifty sovereigns for an analytical examination of oats. The objects to be attained in the examination, were set forth in the following language:

"Little is yet known of the true composition of oats, either in their organic or inorganic parts. The nature of the organic parts, for example, is believed to vary with the kind of soil in which the oat is grown—strong lands, light, and peaty soils, each growing its own peculiar samples from the same seed. The kind of manure, and the season cause similar differences, which become more marked still when different varieties of oats are compared with one another. Again, the inorganic part of the oat varies with the same circumstances of soil, manure, climate, and variety of seed; but it is not known to what extent it varies, either as to quantity or quality.

"The Society offers a premium of Fifty Sovereigns for the analytical examination of the grain of the oat, by which the greatest number of the above points may be ascertained.

"The object of the inquiry is to throw light upon the general value of the oat, and of its different varieties, as a food for man or beast; and upon the mode of culture which in different districts ought to be adopted, in order to raise this or that quality or variety."

It gives us great pleasure to state, that among several competitors, our correspondent and fellow-countryman, Mr. JOHN P. NORTON, received the above-mentioned premium of fifty sovereigns—about $250.

CONVENTION OF NURSERYMEN.

MR. EDITOR—I noticed in reading the proceedings of the N. Y. State Ag. Society, recently held at Albany, that a committee is to be appointed to report to a future meeting, the names, and to procure drawings of thirty of the best varieties of the apple. In connection with this subject, I would venture to suggest for consideration, the propriety and importance of having a general convention of nurserymen and amateur fruit growers; and that such meeting be held at Auburn during the next State Fair.

Let every nurseryman and fruit grower bring with him, from all parts of the country—not only from this, but from other states—such specimens of fruit as they may possess; and I venture to say that it will add much

to the interest of the show, and will undoubtedly be the means of doing much good, and perhaps very materially correct the nomenclature of fruits. I have no doubt but Pennsylvania, Ohio, Michigan, Indiana, Illinois, and Wisconsin, would all be well represented in such convention. The Eastern States I think will not be behind hand in the matter; and even John Bull will be there, and will then talk quite as flippantly about fruits as he does now about Oregon.

I would not wish to be understood as saying that the convention should constitute the committee. By no means. But let such committee meet with and take part in the discussion on fruits in said convention; where very much important information will be elicited from all parts of the country. Information which would be of immense importance to the public at large. Without wishing to assume any authority whatever of calling such convention, I merely fling out these suggestions for consideration. PYRUS.

Buffalo, Feb'y, 1846.

GARDEN OPERATIONS FOR MARCH.

MR. TUCKER—About the latter part of this month, the first signs of early spring appear in the flowering of the crocuses:

"————————The first gilt thing
That wears the trembling pearls of spring."

This pretty little flower, "that comes before the swallow dares, and takes the winds of March with beauty," is a great favorite of mine. The three earliest sorts of crocuses are the yellow garden crocus, of a deep orange yellow; the cloth of gold, with chocolate stripes; and the Scotch, or white striped. The different shades of blue are the latest. All these, disposed in clumps of a dozen or more bulbs, with snow-drops and blue-bells, give to a garden a very gay appearance.

"Crocuses like drops of gold,
Studded on the deep brown mould;
Snow-drops fair like flakes of snow,
And blue-bells bright now blow."

Of the ornamental shrubs we have the Double flowering Almond, and the Daphne mezereum, frequently in full bloom the last of the month. The flowers come out before the leaves, and grow in clusters all round the shoots of the former year.

"Though leafless, well attired, and thick beset
With blushing wreaths, inverting every spray."

There are two varieties, the white-flowered with yellow berries, and the peach-flowered, with red berries. A stray Pansy, Polyanthus, or a blue flower of the running Myrtle, peeping out from a mass of dark green foliage, sometimes cheer us by their appearance at this early period of vegetation; and among the early bulbs we may enumerate, the spring Crocus, of several varieties, Blue-bells, and Snow-drops; that interesting little flower, that "seems to vie in whiteness with the winding sheet of winter."

"Already now the snow-drop dares appear,
The first pale blossom of the unripened year;
As Flora's breath, by some transforming power,
Had changed an icicle into a flower;
Its name and hue the scentless plant retains,
And winter lingers in its icy veins."

At this season of the year, those gardens composed of evergreens, and the beds and walks edged with dwarf-box, prove to us the value of planting our grounds with trees and shrubs, that retain their leaves. As there is something required to be done in a garden at all seasons of the year, I would recommend the keeping of your flower-beds free from weeds, decayed leaves, &c., as the want of neatness will render the natural aspect of the garden, at this season, still more cheerless. There is also a peculiar pleasure in keeping a garden in order. An old author says: "it tendeth to compose the mind, if it be turmoiled; or affordeth pastime, if it be weary of calmness." The flower-beds should now have their winter covering removed, and the ground should be lightly raked, so as to give a neat appearance to the garden. Care should be taken during this operation to avoid injuring bulbous roots, and herbaceous plants not yet appearing above ground. Box edging ought to be clipped very early in the month, on both sides and at the top. Clean and roll gravel walks, and do every thing in your power to search for and destroy grubs of every kind. Shrubs and vines should be pruned the first of the month, before the sap begins to rise. Cut out all dead wood and unsightly branches, and head down such as require it in order to form them into handsome bushes. Remove all suckers, in order to promote the health and improve the appearance of the plant. Fruit and forest trees should not be pruned until the last of June or the beginning of July. The wound made by cutting off the limb in June or July, will heal much more rapidly than that made at any other time of the year. P.

Westchester Co., Feb. 15th, 1846.

VALUABLE VARIETIES OF INDIAN CORN.

We were much pleased with a variety of twelve-rowed corn, which we saw at Mr. JEWETT'S, in Weybridge, Vermont, last summer, and which we thought highly superior for a northern latitude. At our suggestion, Mr. Comstock, of the Albany Agricultural Warehouse, wrote to Mr. Jewett for a supply of his corn, for seed. Mr. J. sent two varieties, which he describes as follows:

"The largest variety I obtained about 13 years ago in Colchester, in the north part of this state. At every planting season we have been very careful in selecting the seed from the brightest and earliest ears of corn, as uniform in size and color as possible, and thereby have improved the symmetry and quality of the corn.

Jason Stow of this town took one ear from my crib, which was about one foot in length; this he planted the tenth day of June in his garden, and found it all mature in good season for harvest. From this seed for the two succeeding years he planted one entire field on a rich intervale soil, near the bank of Otter creek. On account of yield and soundness of the crops, he prefers it to any corn that he has ever cultivated. The seed which I send you is from the product of this ear grown separate from any other variety. It must prove a valuable variety in the south part of your state, and also in Connecticut and Massachusetts. It is more important that it be planted on a rich strong soil than the other variety which I sent you.

"This latter smaller variety is the favorite corn with us, ripening some days earlier, produces equally well, by planting the hills nearer together, say, rows 3 by 3½ and from 3 to 4 stalks in a hill. Each variety will bear two handsome ears to the stalk, when not allowed to grow too thick. The husks on the last variety are very thin and soft, they change from green to a yellow very sudden. The corn matures in a short season. We obtain of either kind, under good cultivation, fifty bushels to the acre; very free from nubbins or "pig corn;" most of the ears are of uniform size and quality, well filled out at the end. Either variety cultivated as far south as Albany, will change from smaller to a larger stalk and ear in a few years, and may retain most of their valuable qualities, if not improved, by selection of seed in the field, taking ears of good uniform size and most perfect growth, and those earliest ripe.

"Several years since I procured of E. Jewett of St. Albans, a small but very early 12 rowed corn, called the "Palmer corn;" by intermixing this with the large variety described, and carefully selecting medium ears of perfect growth, I obtained the last named variety, which I have sent you.

"Some may not be aware that corn which is not thoroughly dried before winter sets in, or becomes wet, or quite moist, and then freezes, is not fit for seed. The freezing kills the vitality of the corn for seed, although it may look fair."

SOAKING SEEDS.—L. D. (Wilmington, Del.) You will find the information you ask for in our last volume, page 123.

THE CULTIVATOR.

ALBANY, MARCH, 1846.

TO CORRESPONDENTS.

COMMUNICATIONS have been received, since our last, from Lea, Geo. Nesbit, Highlander, Rambler, B. Hodge, H. L. Sheldon, H. A. P., Wm. Todd, S. S. Gregory, N. C. Day, T. D., T. B., W. R. Prince, G. N., S. W., L. Durand, Pyrus, C. Ingalls, K. Haven, Th. Close, C. H. Parshall, J. S. Yeomans, B. W. R., Noyes Darling, S. T. M., A Subscriber, W. B. Hamilton, S. G. Cone, G. W. B., C. Babcock, A. Coffin, D., Wm. Bacon, Uncas, E. Holmes, John Brown, N., Little Delaware, P., Highlander, R. Burritt, S. B., Geo. Hussey, Samuel Waring, J. Storrs, F. L. E.

☞ We hope "P." will continue his notes on "Gardening Operations," through the season—should be glad to receive them as early as the middle of each month.

POSTAGE OF THE CULTIVATOR

Having been informed that several Postmasters, in different parts of the country, charged *pamphlet* postage on "The Cultivator," we enclosed our Feb. No. to the Postmaster-General, with the request that he would decide as to the postage to be charged on it. It will be seen by his reply, which we annex, that he considers it subject to *newspaper* postage only:—

Appointment Office,
Post Office Department, Feb. 14, 1845.

SIR—In reply to your letter of the 10th inst., I have to say that "The Cultivator" published at Albany, New-York, in the form in which it is transmitted for the decision of the Department, is regarded as being subject to newspaper postage, only.

I am, sir, respectfully yours,
W. J. BROWN,
Sec'd Ass't. P. M. Gen'l.

LUTHER TUCKER, Esq.

MONTHLY NOTICES

WEEKLY AGRICULTURAL MEETINGS.—These meetings were commenced for the season in this city on the evening of the annual meeting of the State Agricultural Society, and have been continued weekly since. At the first meeting a geological map of the state was exhibited by Professor HALL, and some remarks were made by him and others on the geological character of the soils of the various districts, and the influence of the composition of the soil on its productions. Connected in some degree with this subject, some interesting remarks were made at a subsequent meeting, by Dr. BEEKMAN, in reference to the report of the committee, (of which Dr. B. was chairman,) appointed by the State Society to examine the claims for premiums for the best cultivated farms, and in reference also to the statistical returns of agricultural products from the different counties. At the second meeting the subject of manures and their application was taken up for discussion, and so *fertile* has been the subject, and so *prolific* of words has it proved, that for three evenings it has occupied the time. As it is, however, an important, perhaps the most important subject to the farmer, we can hardly doubt that the time has been profitably spent in its discussion.

Crowded as our columns are, it is impossible for us to furnish any reports of these meetings, but shall give such brief notices of them as we can find room for.

CORRECTION.—Our printer made a sad blunder in placing the illustrations to the article on Transplanting Trees, p. 65 of our last number. Fig. 18 should have been fig. 19, and fig. 19, (which should have been 18,) was given with the *roots* upward, and the top on the ground.

LARGE GEESE.—E. CHEESBRO, of Guilderland, brought to this market, in January last, seventeen geese, goslings of 1845, the average dressed weight of which was fourteen pounds. They were a cross of the Bremen and African, sometimes called Poland. He finds this a good stock to rear—hardy and prolific.

DURABILITY OF PINE SHINGLES.—We have been told by Maj. TIMOTHY COWLES, of Farmington, Conn., that the roof of the congregational church in that town was covered with pine shingles in the year 1771, and that they are still perfectly sound, and have never yet let through a drop of water.

G. M. KASSEN, of Bethlehem, Ct., counted the kernels produced from two kernels planted, and he found the produce of one 1900, and the other 1960, making all together 3860.

MONTHLY STRAWBERRIES.—Those desiring plants of the new variety of the Strawberry, known as "Stoddard's Seedling," may learn from an advertisement in this number, where they can be obtained. The production of this superior variety is the result of a series of experiments made by Col. J. S. STODDARD, of Palmyra, N. Y. It will be found described in the Cultivator of August last, p. 251, as it developed its extraordinary qualities in the season of bearing.

ANSWERS TO INQUIRIES.

AYLESBURY DUCKS.—R., (New-Brunswick, N. J.) We do not know of any of this breed of ducks for sale. The largest breed of ducks we know of in this vicinity, are called Spanish ducks. They are of a bluish gray color, and very large.

HORSE-MILL.—A. P., (Washington, Ga.) Sinclair's mill, described in the Cultivator for last year, (page 17,) we should think would answer your purpose. If you wish a machine for working up corn and cob, Pitt's, described in our last vol. p. 324, is a first rate article for the purpose.

MALAY FOWLS.—O. B. (Castleton, Vt.) The Malay fowls are of all colors, from dull yellow to black. They vary in size; but the largest of them are entitled to the first rank in this respect, and will weigh when dressed from four to six pounds. Occasionally some will weigh more, and capons of this breed have been fattened to the weight of a dozen to fourteen pounds each, dressed. Some of them are coarse and bony, but others, which have been well bred, are not so. The Malay and Java are nearly allied in their characteristics.

PHEASANT, OR GOLDEN TOP-KNOT.—I. D., (Zanesville, O.) We see no particular objections to a cross of these with the spangled Dorkings. Mr. Cox, of Z., crossed the Pheasant Top-Knot with a large fowl of the Malay character, and the produce were the finest fleshed and best flavored of any chickens we ever saw.

TEESWATER BUCK.—D., (Kinderhook.) We presume there are no sheep of this breed in this country, and we are not aware that they possess any properties that entitle them to preference over the Leicester or the Cotswold.

CASTOR OIL.—J. R. D., (Paperville, Tenn.,) wishes to see a full description of the manner of extracting and rectifying this oil. Will not some of our correspondents who are acquainted with the process, furnish this information?

ASCERTAINING THE PROPERTIES OF COWS.—I. D., (Zanesville, O.) The account you allude to, we presume is that of a Frenchman, M. Francis Guenon. A translation of his treatise is published in the Farmers' Library, edited by J. S. Skinner, and published by Greely & McElrath, New-York.

NEW PUBLICATIONS.

AMERICAN JOURNAL OF SCIENCE AND ARTS.—The number for January, 1846, which is the commencement of a new series of the work, is before us. Its leading article is on three several hurricanes of the American seas, and their relation to the Northers, so called, of the Gulf of Mexico and the Bay of Honduras, with charts illustrating the same, by W. C. REDFIELD. This is followed by eight other chapters, by able writers, on various subjects of science, and over 150 pages under the head of "SCIENTIFIC INTELLIGENCE," of great interest to the general reader as well as to the man of science. The work is conducted by Professor SILLIMAN, B. SILLIMAN, Jr., and JAMES D. DANA. Published at New Haven, on the first day of every second month—price $5 a year.

COLMAN'S EUROPEAN AGRICULTURE, PART V.—We have read this part of Mr. Colman's work with much interest and pleasure. It contains considerably more matter of a practical nature than any previous number. It came too late for an extended notice this month, but we shall take it in hand and give a thorough synopsis of it in our next.

THE PASTORAL LIFE AND MANUFACTURES OF THE ANCIENTS:—Comprising the history of Silk, Cotton, Linen, Wool, and other fibrous substances: illustrated by ten engravings on steel: HARPER & BROTHERS, N. York. Our thanks are due the publishers for a copy of this work; but we have not yet had the opportunity of examining it. We shall give it a careful perusal, and furhish a view of its contents, hereafter.

ADDRESS UPON INJURIOUS INSECTS; delivered before the New Haven Horticultural Society and the New Haven County Agricultural Society, by NOYES DARLING. This is a highly interesting and valuable address, from which we intend, as we have opportunity, to make extracts. At present, however, we can only notice it briefly. In relation to the cut-worm, that great pest of the farmers' crops in the early part of the season, the following sensible remarks are given by way of remedies. As the time is approaching when the ravages of these insects may be expected, the proposed remedy may be useful;—"On a large scale," says Judge Darling, "sowing salt over the fields, and plowing in the fall have been tried and recommended; but none of these remedies have proved effectual. The best course hitherto pursued for their destruction, is to *dig them out of the earth and give them to the chickens.*" This is best done by going over the garden or field early in the morning, when the plants which have been cut down the preceding night, are easily seen, and the worms may be generally found buried in the earth near their stumps.

DISTRICT SCHOOL JOURNAL.—The editorial management of this work has been assumed by S. S. RANDALL, Esq., deputy state superintendent of common schools. Mr. R. is well known as a gentleman of distinguished abilities for such an undertaking, and we can hardly doubt that the Journal, under his direction, will be made highly popular and useful.

MAGAZINE OF HORTICULTURE.—The second volume of the new series of this work, commenced on the first of January last. This is the twelfth year of the publication of the Magazine, in which time it has become extensively known, and has doubtless rendered valuable assistance in the advancement of horticultural science. It is edited by C. M. HOVEY, and published monthly, at Boston. Three dollars a year.

TRANSACTIONS OF THE MADISON CO. AG. SOCIETY.—This pamphlet, besides furnishing the doings of this society, for three years, gives an abstract of the census of 1845, and an article on the geology of the county, with a map. The map is taken from the geological map of the state, and it is so colored as to show the portions of the county which are covered by each particular formation. It shows also the manner in which the strata lie, and the manner in which they pass under and are succeeded by each other. This is the first county in the state which has made any attempt to illustrate the geology of the district in connexion with the improvement of agriculture. We deem the example a good one, and hope it will be followed by all our other county societies.

MEDICO CHIRURGICAL REVIEW.—We have received the number for January, 1846. This most valuable work is issued quarterly, each number containing 280 pages, at $5 per annum, by R. & G. S. WOOD, 261 Pearl street, New-York. It seems eminently deserving the patronage of the medical faculty—indeed any one who has the leisure to read it, could hardly fail to derive therefrom much valuable information.

FAT ANIMALS.

OUR market presented a fine display of beef on the 22d of February. At the stalls of KIRKPATRICK & LAGRANGE, we noticed the carcases of two fine Durhams, bred and fattened by E. P. PRENTICE, Esq. The first was an ox, five years old, which received one of the premiums of the State Society, at Utica. His live weight was 2,546, and his dressed weight as follows:—

Four quarters,	1,688
Loose Tallow,	260
Hide,	126
Total,	2,074 lbs.

This was a very symmetrical and well-made animal—as handsome an ox, considered in all respects, as we ever saw. His meat was beautiful in appearance—the fat and lean being in due proportions, and well *marbled.*

The next was a Durham cow, five years old, which was put to fattening last fall, in consequence of a tumor on the jaw. Mr. Prentice informs us that she had a calf last season, and was milked till October. Considering these circumstances, her weight and fatness were remarkable. Her live weight was 1,520 lbs., and her dressed weight as follows:—

Four quarters,	950
Loose tallow,	100
Hide,	73
Total,	1,123

At the stalls of Mr. MAHONEY, was the carcass of an uncommonly fat ox fatted by JAMES S. WADSWORTH, Esq., of Geneseo, and also the carcases of two very fine Hereford steers, bred and fatted by Mr. SOTHAM, of this city. The Wadsworth ox was seven years old; weighed alive, 2,465 lbs., and dressed as follows:

Four quarters,	1,686
Loose tallow,	260
Hide,	115
Total,	2,061

This ox was one of a splendid lot of ten fatted by Mr. Wadsworth, and which came on here by railroad, designed for Boston; but an offer being accepted for this one he was left, and the others passed on. The epicures of the New-England metropolis, are doubtless before this, luxuriating on superior roast beef. The following are the live weights of the nine which were taken to Boston:—

Two oxen, six years old,	4,865 lbs.
Two steers, three years old,	3,965 "
Two do., four years old,	3,365 "
One single steer,	1,725 "
One do. do. white,	1,790 "
One cow,	1,585 "

The dressed weights of the Hereford steers above mentioned, were;—

No. 1—beef, tallow and hide,	1,200 lbs.
" 2— " " "	1,150 "

The quality of the beef, was, considering their age, four years, very fine—the grain was fine, and the mixture of fat and lean good.

FOREIGN---IMPORTANT.

The last arrival from England brought the important intelligence that a scheme has been announced in parliament by Sir Robert Peel, for the total repeal of the Corn-Laws. Although it is not proposed that the total repeal shall be immediate, yet it is remarked that the scheme will operate as a repeal, "as it is probable that during this year the duty will not be higher than four shillings per quarter, a comparatively nominal charge." This information cannot fail to be regarded with great interest in this country; but what will be the precise effect of the new measure, must be proved by experience. It seems reasonable that an opening will be made to a considerable extent for some of our agricultural products—especially Indian corn, (if some good way can be devised to secure it from injury during transportation,) and well cured salted provisions. From the article which we give below, it will be seen that free admission is to be allowed to these articles immediately.

It does not appear that any new measure has been proposed for raising the government revenues. The Premier stated in the speech accompanying his proposition, that "such was his confidence in the elasticity of the revenue, that he intended to make no proposition with regard to the income tax; and indeed he hoped there would be no necessity for the imposition of any new tax."

The following is a summary of the new scheme, as given by the London Mark-Lane Express:

1st. A TOTAL REPEAL OF THE CORN-LAWS, after THREE YEARS, with very moderate rates of duty from the present time.

2d. *Free admission immediately* of Foreign Cattle, Maize or Indian Corn, Buck Wheat, Potatoes, Vegetables, Bacon, Beef both fresh and salted, and Pork.

3d. A *Reduction of one-half* in the duties on Foreign Butter, Cheese, hops, Fish and Cider.

4th. A *Reduction* of 3s. 6d. per cwt. in the differential duty on Foreign Free Labor Sugar—reducing the protection on British Plantation Sugar to that amount.

5th. A *Reduction* of the duty on Grass and Clover Seeds to a very small rate.

6th. A *Reduction* of the duty on Foreign Spirits from 22s. 10d. to 15s. per gallon.

7th. A *totol Repeal* of the duties on Foreign Cottons, Woollens, and Linens, with a great reduction on Silks.

8th. A *Reduction of one-half* in the duty on Wrought Clothing, Boots and Shoes, manufactures of Metals, and Carriages.

9th. A *total Repeal* of the duty on Dressed Hides; and a *reduction* of the duties on Foreign Tallow, Soap, and Candles.

10th. A further reduction of the Timber duties.

11th. An alleviation of Highway and County Rates, and an alteration in the Law of Settlement favorable to the Agricultural Districts.

There is to be no increase of the Income Tax.

SUBSOIL PLOWING.

W. B. HAMILTON, of Philadelpeia, recommends the subsoil plow as a means of guarding crops from injury, either by drouth or wet. In a dry season, he thinks the mellowing of the soil to the depth of eighteen inches, as might be done with this implement, the roots of the plants would penetrate and find moisture, perhaps sufficient to mature the crop, though none should fall from the clouds while it was growing. The advantage, he thinks, would be particularly conspicuous on soils of a clayey character, with a tenacious subsoil. On the other hand, he remarks that in a wet season, clayey soils hold water "like a jug," and when saturated and exposed to a hot sun, the plants are "scalded to death." By subsoiling, or, as he expresses it, "by having the bottom of the jug knocked out, the surplus moisture would escape, leaving the soil in a condition to yield a good return." The land might also, he observes, "be plowed at a time when otherwise it could not be touched without detriment."

CONDENSED CORRESPONDENCE.

EXPERIMENTS WITH POTATOES.

G. M. KASSEN, of Bethlehem, Ct., says—"I have tried several experiments in planting potatoes, and have found the following results. Of the large red kind I planted 10 hills of each sort, which, when digged, weighed as follows:—

	lbs.	oz.
No. 1, large, whole,	56	4
" 2, " two halves,	61	12
" 3, " one-half,	46	12
" 4, very small,	42	8
Another experiment with 5 hills.		
No. 1, large and whole,	26	6
" 2, " two halves,	27	7
" 3, " one-half,	20	3
" 4, very small,	14	7
Of the Scotch greys—5 hills each.		
No. 1, large whole,	24	6
" 2, " two halves,	29	14
" 3, " one-half,	22	10
" 4, very small,	19	2
Another experiment with same kind.		
No. 1, large whole,	16	8
" 2, " two halves,	29	12
" 3, " one-half,	23	4
" 4, " very small,	24	12

It will be observed that there is considerable uniformity in the results of these experiments, viz: the product being always greatest from two halves of a large potato put in a hill, and always least from the small potatoes.

THE RIGHT SPIRIT.

MR. TUCKER—The farmers of Vernon friendly to the cause of agricultural improvement, have formed themselves into an agricultural association. Regular weekly meetings have been held during the winter, which have been well attended. Committees were appointed to confer and report upon the various subjects pertaining to agriculture, which has called out the peculiar views of the several members, together with much profitable discussion. A circulating library is designed to be established, and a routine of useful experiments in farming are to be resorted to the ensuing season. A package of seeds, together with the several reports of the Commissioner of Patents has been received. Above sixty copies of the Cultivator and Genesee Farmer are taken by the farmers, and the right spirit is manifest. The officers of the association are I. S. Hitchcock, Esq., President; N. S. Wright, J. Whipple Jenkins, S. H. Church, and C. Wetmore, Vice-Presidents; H. D. Tuttle, Treasurer; L. T. Marshall, Cor. Sec'y; F. Ingersol, Rec. Sec'y. L. T. M.

Vernon Centre, N. Y. Feb. 9, 1846.

POTATO DISEASE.

Mr. CHARLES BLANDY, of Brownsville, Ohio, writes, "Having planted several lots of various aspect and position, the last year, I have by careful observation come to the conclusion, that the best, if not the only method to raise this desirable esculent, is, to select a high piece of ground, naturally dry, and fully open to the sun; to plant early, and dig as soon as the vine or haulm begins to die; to keep the soil loose and free from weeds of all kinds. By adopting this course, I am almost the only man in this vicinity whose crop was free from rot; although the kind planted by myself and neighbors was the same—the blue-eyed Neshannock, known in New-York as Mercers."

MISSISSIPPI AGRICULTURE.

Extract of a letter from Dr. M. W. PHILLIPS, Edwards' Depot:—"Our people are improving, and will improve, and I tell you more than this, that low prices of cotton and high prices of our necessaries will open out in this *my clime* a production that will drive many from our market. Pork can be bought cheaper in Eastern Mississippi than in Cincinnati; hay or fodder can be bought cheaper than in New-York, Cincinnati, or N. Orleans. I have sold an excellent lot (10 steers) of beef

cattle at 2½ cents per lb. I know of a pretty large lot of 2 year old hogs, purchased at $2.50 to $3.00 each—they would weigh 150 to 200 lbs—say 160 lbs. average. I will sell wethers at 5 cents, stalled for two or 3 mo's. I hope to see the day that Mississippi and Louisiana will supply our own people with every necessary, and I glory in being one of Mississippi's citizens who exerts himself in making her thus honorable and independent. I tell you sir, it can be done, and yet send off our 500,000 bales, worth $10,000,000 or more, and I believe, to some extent, it will be done in my day and time."

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CORN PLANTING.

Extract of a letter from GEO. BLESSING, Frederick county, Md.—"From the scantiness of the corn crop last year, and in many places its almost entire failure, it may not be amiss to look back and try if we cannot detect some cause beside the summer drouth that has been the cause of this scantiness of that valuable grain. I will give you a short sketch of my system of planting corn; not that I wish any person to abandon his system and adopt mine, but I would like to hear from any man who plants his corn as I do mine—if he has ever missed a crop in a dry summer. I can say without the fear of contradiction, that I never have; and the manner in which I plant is simply this:—I prepare my ground well first; then I take the best of seed, and put five or six grains in each hill. This will obviate the necessity of replanting, as I always have plants enough in each hill. As soon as the corn is high enough to run the harrow over it, I do so, and follow the harrow with sufficient hands to uncover and thin the corn, leaving but two stalks in each hill. By dropping five or six grains in a hill, there is always two or three of that number that are as large again as the balance—consequently I have a fine choice of strong plants, that I let stand, and my corn is always regular and strong; whereas, by the old system of dropping two or three grains, the farmer is compelled, if there is a weak stock in a hill, to let it stand, and of course he has short stalks and no corn. I always like to plant directly north and south, as the corn planted in that way will stand the drouth better. I would only say that I cultivate second rate land, and my crop will yield me twenty-five bushels to the acre at least, while many that farm first rate land would get ten bushels to the acre."

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CONNECTICUT IRON WORKS.

Mr. J. BINGHAM, who dates at "Meadow-Bank, Columbia county, N. Y." gives us some information in reference to the iron manufactures of the Housatonic valley, of which we made a brief notice in our last. He states that the amount of ore used at ten establishments, mostly in Salisbury, is 12,080 tons annually; that one dollar per ton is paid to the owners of the mines for the ore taken from them; that the diggers receive $1.50 per ton, which added to price paid for carting, one dollar, makes the ore cost, at the distance of five to six miles, $3.50 per ton, and at the distance of 12 to 14 miles, $4.25 per ton. The beds worked in the southwestern part of Salisbury, have been known for a century. "The iron made from the ore of the old bed in Salisbury," says Mr. Bingham, "is the kind required by the government for the arms made at Springfield, Massachusetts, and Harper's Ferry, Virginia. This iron takes a finer and more beautiful polish than that made from other ore, and is besides excellent for castings. The ores from the other beds are good for almost every purpose but making iron for fire-arms. The *refined* iron from the 'old iron bed' ores, is a beautiful article, and the price reaches not far from $150 per ton. The government contracts require that the iron shall be taken exclusively from this mine.

"Iron and sheep are the principal sources of wealth to the inhabitants of Salisbury. Something near thirty thousand dollars were paid into that town last year for Saxon wool.

"The transportation of the ore is principally done by the farmers. With a team of horses they take away two loads of a ton each, per day—carrying it five miles. A pair of oxen take one load of twenty-five hundred—sometimes one and a half tons. They might occupy their teams to more real profit, as it seems to me, by staying at home and carting out muck and manure on their lands. It is a poor business that cannot keep a farmer at home, instead of hauling ore five miles at a dollar per ton."

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BLACK SEA WHEAT.

WILLETTS KEESE, of Peru, N. Y., writes:—"I have often heard it said that Black Sea wheat could be grown upon ground so rich that it might fall down without any injury to the grain. I had a fair opportunity of testing it the last season upon my brother's farm. The wheat commenced falling down before it was fully headed, so great was the growth. I came to the conclusion that it would be nearly a total loss; but he has just informed me that the amount was seventy bushels upon two acres. It was a piece of low flat land. Potatoes had grown upon it the previous year without manure. I think it must be a good kind of wheat to sow upon moist rich land. This piece was so badly lodged that it had to be cut with a sickle, which was done by Canadian women, and in as short time as most men would have performed it."

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Several communications, together with a page or two of Condensed Correspondence, omitted for want of room.

PRICES OF AGRICULTURAL PRODUCTS.

New-York, February 19, 1846.

COTTON—New Orleans, per lb., 6¼*a*9¼—Alabama 6*a*9¼—Upland, 6*a*8¼.

BUTTER—Prime, per lb., 15*a*20c.—Common, 9*a*10c.

CHEESE—Per lb., 7*a*7½c.

FLOUR—Baltimore, Howard-street, per bbl, $5.12½*a* $5.25—Richmond City Mills, $6.62½*a*$6 75

GRAIN—Wheat, (western New-York,)$1.15*a*$1.25—Rye, 79*a* 80c.—Corn, northern, 68*a*70c.—southern, 63*a*64c.—Barley, 62*a* 65c.—Oats, northern, 47—southern, 38c.

HEMP—Russia, clean per ton, $195*a*$200—Manilla $160*a*$165.

HAMS—Smoked per lb..7½*a*7¾ cts.

BEEF—mess, per bbl., $8*a*$8.50.

LARD—7*a*8c. per lb.

PORK—Mess, per bbl., $11*a*$12.50.

TOBACCO—Keatucky, per lb., 3*a*4c.

WOOL—(Boston prices.) Feb. 21:

Prime or Saxony fleeces, washed per lb.....	40*a*42 cts.
American full blood fleeces,.....	37*a*38 "
" three-fourths blood fleeces,.....	32*a*33 "
" half blood do	30*a*31 "
" one-fourth blood and common,....	27*a*30 "

LIVE STOCK—Brighton Market—Monday, February 16.

At market, 345 Beef Cattle, 4 yokes Working Oxen, 22 Cows and Calves, 1100 sheep, and about 850 Swine. In consequence of the storm, one or two lots of cattle did not arrive at the Market.

Beef Cattle—sales of extra, $6.50; first quality, $6.00; 2d do., $5.25*a*$5.50; 3d do., $4.25*a*$5.00.

Working Oxen—Sales not noticed.

Cows and Calves—Dull. Sales noticed at $20, $23, $27, and $33.

Sheep—Sales noticed at $1.75, $2.33 $3.12, and $4.56.

Swine—Dull. Sales not noticed, as there were but few buyers

FIELD-SEEDS AT THE ALBANY AGRICULTURAL WAREHOUSE.

300 BUSHELS BLACK SEA WHEAT, both red and white varieties.
200 bushels Italian wheat.
200 " Marrowfat Peas.
75 " Black-eyed Peas.
100 " Canada Peas,
15 " Emir or Skinless Barley.
150 " Four rowed Barley.
250 " Two rowed Barley, (an uncommonly fine sample.)

CORN.

"Large Dutton," 12 rowed;
"Improved Dutton," 12 rowed, raised by S. W. Jewett, Vt.;
Long 8 rowed yellow;
Madawasca or early Canada;
White Flint, (long ears,)
Small White Flint.

CARROT.

100 lbs. Large white;
150 " Long Orange.

TURNEPS.

350 lbs. Ruta-baga or Swedish;
100 " Large English Norfolk;
100 " White flat, or winter.

GRASS SEEDS.

Timothy, best quality,	Orchard Grass,
Northern Red Top,	Southern Red Top,
Large Northern Clover,	Western Medium Clover,
Lucerne or French Clover,	White Dutch Clover.

All the above may be had of best quality, at the Albany Agricultural Warehouse and Seed Store, 23 Dean-st.
March 1. E. COMSTOCK & Co.

WORCESTER PLOWS.

LUTHER TUCKER, Esq.—Dear Sir—We observe with much surprise, by an advertisement on page 71, of the last No. of the Cultivator, that John Mayher & Co. 195 Front-street, New-York, offer different sizes of "Worcester Patent" Plows, and "castings to fit," bearing the same *names* and *marks* as the "Worcester Eagle" Plows made by us.

We pronounce the whole thing a *gross imposition*, and calculated to *deceive* the public.

John Mayher & Co. have attempted to pattern from our Plows, and have got up a very *coarse* and *imperfect imitation* of them. We hereby caution the public against such imitations and impositions, as every part of them are very inferior to our manufacture.

We also observe in the January No. of the Cultivator that J. Plant, No 5 Burling Slip, New-York, advertises our Eagle Plows &c. for sale. *He is not authorized so to do.*

Our *sole* agent for the city of New-York is A. B. ALLEN, 187 Water-st. At his Agricultural Warehouse, the public will find the *genuine* Worcester or Eagle Plows, manufactured by us, as well as a most complete assortment of other Agricultural and Horticultural implements of our make.

Respectfully yours,
RUGGLES, NOURSE & MASON,
March 1, 1846. of Boston and Worcester.

STODDARD'S SEEDLING STRAWBERRY.

PPANTS of this new seedling may be obtained on the opening of the ensuing spring season, of the original producer, J. S. STODDARD, Palmyra, N. Y. The superiority of this variety of the Strawberry, in respect both to quality of fruit and certainty and bountifulness in bearing, has been fully demonstrated by a number of years trial. Inquirers are referred to an editorial notice in the Cultivator of August last, p. 251. Plants will be put up in a secure manner, and may be sent by express or otherwise to almost any part of the country, or to Europe. Price $5 for 50 plants All orders must be accompanied by the cash, (post paid if by mail,) and should be addressed to the proprietor as above.
Palmyra, March 1, 1846.

THE PLANTING SEASON.

COMMERCIAL GARDEN AND NURSERY OF PARSONS & Co., FLUSHING, NEAR NEW-YORK.

THE proprietors desire to call attention to this extensive establishment, now one of the largest in the union, covering an area of over fifty acres, and compactly planted with every desirable variety of Fruit and Ornamental Trees and Shrubs.

Their FRUIT TREES, they can recommend as being straight and thrifty; of undoubted genuiness, which they ensure by close personal attention to propagating from the most reliable sources and from bearing trees; and also as being, from the well ripened state of the wood, peculiarly adapted for removal to higher latitudes.

To those who are in need of ORNAMENTAL TREES AND SHRUBS, they can with confidence recommend their assortment as embracing together with the old standard varieties, many new species selected personally by the proprietors from the principal Horticultural establishments of Europe, whence they are receiving constant additions.

Orders may be addressed to the proprietors, at Flushing, New-York, and catalogues can be procured on application to themselves, to Parsons & Lawrence, 129 Pearl-street, or to A. B. Allen, 187 Water-st., New-York.
Flushing, New-York, 2d mo., 7, 1846—1t.

BUFFALO NURSERY AND HORTICULTURAL GARDEN.

THIS nursery was commenced upwards of twenty-five years ago, and now contains a very large number of the most choice and proved varieties of select fruits: together with a fine collection of ornamental Trees, Flowering Shrubs and Plants.

Individuals wishing to forward Trees to the Western States, will, perhaps, find it to their advantage to purchase here. The stock of choice and select Apple Trees (comprising 1500 of the most noted varieties) is now very large and fine. Prices very moderate.

His descriptive Catalogue, a pamphlet of 40 pages, forwarded gratis, to every applicant. Trees packed in superior order, and forwarded with dispatch. Orders will receive the most prompt attention. B. HODGE
Buffalo, N. Y., March, 1846.—2t*

QUINCY HALL AGRICULTURAL WAREHOUSE AND SEED STORE,

Over the Market, Boston, by RUGGLES, NOURSE & MASON, Manufacturers, and Dealers, Wholesale and Retail.

AT this extensive warehouse is offered to the farming and planting public and dealers a collection and an assortment of farming and planting tools and seeds adapted to the wants of the different sections of the United States, far exceeding in kinds, quality and amount that of any other similar establishment, and may be called the *American Depot* and *Market* for the sale of agricultural and horticultural implements and machines from the best manufacturers in this country and Europe.

WORCESTER EAGLE PLOWS.

In each year 1842 and 1843 the Agricultural Society of Essex county, Mass, offered Premiums for the best Plows, and instituted full investigation and trials which resulted each year in awarding to RUGGLES, NOURSE & MASON the highest premium. The judging Committee for 1843, in their printed Report, say "our attention was called to the *quality* of the castings on the Plows of RUGGLES & Co., their *finish* and *durability*. Their appearance is certainly more perfect than any thing we have elsewhere seen. The process of *Chilling* the *Point*, the entire *Edge* of the *Share* and *Flange or Base* of the *Landside*, gives a permanence and durability to the work that renders it of a decidedly superior character," and we think there is no hazard in saying, that the value of the parts thus made is more than doubled by the process."

The following table shows the number of Premiums awarded to competitors contending for the prizes before the several different Societies named, and the number awarded to those who used Plows made by RUGGLES, NOURSE & MASON.

Name of Society.	Year.	No. of premiums offered.	No. Prems. awarded as above.
Essex county, Mass.....	1843	10 premiums	9 premium.
do do do.....	1844	8 do	6 do
do do do.....	1845	11 do	11 do
Middlesex do do.....	1843	8 do	5 do
do do do.....	1844	8 do	5 do
do do do.....	1845	8 do	6 do
Worcester do do.....	1840	9 do	9 do
do do do.....	1841	9 do	9 do
do do do.....	1842	9 do	9 do
do do do.....	1843	12 do	12 do
do do do.....	1844	11 do	7 do
do do do.....	1845	10 do	8 do
Plymouth do do.....	1844	6 do	6 do
Bristol do do.....	1845	11 do	7 do
Hampden do do.....	1844	3 do	2 do
do do do.....	1845	6 do	3 do
Berkshire do do.....	1845	8 do	7 do
Barnstable do do.....	1845	4 do	3 do
Hartford do Conn., ...	1845	3 do	3 do
Dutchess do N. Y., ...	1845	2 do	2 do
Windham do Vt., ...	1845	4 do	2 do

It is but just to remark that the competition was as much between the plow makers as the plowmen, and in most instances noted, the plows above named were strongly contested by many celebrated plows made in N. England, and that in every case the *first* Premium was awarded to plowmen who performed their work with plows made by RUGGLES, NOURSE & MASON.

The above Plows and *other implements* from the above named establishment may be had at the *Agricultural Warehouses* of A. B. ALLEN, 187 Water-street, New-York; and E. COMSTOCK & Co. 23 Dean-street, Albany, sole agents for New-York and Albany.
Boston and Worcester, March 1st, 1846.—1t

AMES' SHOVELS AND SPADES, by the dozen or retail, at the Albany Ag. Warehouse. E. COMSTOCK & Co

NEW-YORK AGRICULTURAL WAREHOUSE.

CAUTION.—BEWARE OF COUNTERFEITS.

The only place to find the genuine Eagle and other Plows manufactured by Ruggles, Nourse & Mason, of Worcester, Mass., is at the warehouse of the

SUBSCRIBER, who keeps constantly on hand the best and most complete assortment of Agricultural Implements, Field Seeds, and Fertilizers to be found in the city. A few of the articles he enumerates below, viz:—

Plows.—Cotton, Rice, and Sugar Plows,..... $2 00 to $4.50

Some of these plows are made expressly for light sandy soils, others for a loam or stiff clay, which they work in the best manner. Being made by patent machinery, they are superior to anything of the kind ever before sold in this market.

One-horse plows for the north, with single and double mould-boards. These last are admirable to work in between the rows of root-crops and corn, when not over 3½ feet apart, as they turn the furrow both ways to the crop at once, thus doing double the work of a single mould-board,..... $3.00 to $5.00

Rice Trenching Plow. This does the same work as the hands, perform on a rice plantation with trenching hoes, and equally as well, and with five times the rapidity that a negro can work. No rice planter should be without them,..... $6 00 to $6.50

Two and four-horse Plows, of different sizes and for all sorts of soil—stoney, sandy, loam or clay; also for stubble and sward land. Some of these have crane-clevies attached to them, thus enabling the off horse, in plowing a wet meadow, to walk on the solid sward, instead of a miry fresh plowed furrow. Others are adapted to trench plowing, enabling the farmer to turn up virgin earth in a deep soil. These plows are strong enough to grub up bushes with their roots, heavy bogs, &c. They likewise answer for partial ditching, ... $5.00 to $20.00

Paring Plows for shaving off the turf preparatory to burning,..... $15.00

Harrows. A complete assortment of square, triangle, and double triangle folding harrows, with wrought iron or steel pointed teeth. The last are very superior,..... $6.00 to $16 00

Rollers of various kinds, wood, stone, or iron, single or double, and to move by hand or horse power,..... $16 00 to $65 00

Cultivators, hand or horse, of various patterns,..	3 00 to	8 00
Horse Powers. Endless chain, single horse, ...		85 00
" " two-horse, ...		110 00
" Cast-iron single or two-horse,	50 00 to	60 00
" " four-horse, ...		95 00
Grain Threshers,.... $25 to $40 Beaters,.....	20 00 to	25 00
Thresher with Separators, ...	35 00 to	50 00
Clover Mills,.....	30 00 to	65 00
Fanning Mills, ...	12 00 to	27 00
Burr Stone Mills, for grinding grain, ...	30 00 to	125 00
Cast-iron Mills, a new and most admirable invention. They work either by hand or other power, and are well adapted for grinding all kinds of grain, except flouring wheat for market,.....	7 00 to	25 00
Corn and Cob Crushers, for grinding cob in the ear,	30 00 to	35 00
Sugar crushers,.....	7 50 to	20 00
Paint Mills of various patterns, ...	7 00 to	17 00
Corn-Shellers and Huskers. Will shell from 100 to 200 bushels of ears per hour, in the best manner. These work by horse or other power,..	25 00 to	50 00
The same worked by hand, made of wood or cast-iron, ...	7 00 to	10 00
Vegetable cutters, for slicing up potatoes, beets, turneps, &c.,.....	8 00 to	12 00
Straw Cutters. Common hand kind, ...	3 00 to	8 00
" Hovey's, with spiral blades, ...	10 00 to	30 00
" Stevens' do., cut from one inch to one and one-fourth inches long	10 00 to	15 00
Cornstalk Cutters. Thorn's, Sinclair's, & others,	25 00 to	45 00
Cotton Gins of various patterns, ...	25 00 to	150 00
Ox, Road, or Dirt Scrapers,.....	4 50 to	5 00
Self-acting Cheese Press, a neat and very superior and simple article,.....		6 50
Seed Sowers, various patterns,.....	2 50 to	5 00
Horticultural Tool Chests complete,.....		18 00
Wheelbarrows for Gardens,.....		4 50
Common do.,.....	2 25 to	3 50

Tree or bush pullers, $3 to $5; garden syringes, $3 to $3 50; grain cradles, $3 to $3 50; sausage stuffers, $4.50 to 5.00; lactometers, $2.50; bee-hives, $3 25; ox yokes and bows, $2.50 to $5.00; manure forks, 63 cents to $4.00; hay do., 50 cents to $1; grain and grass scythes, 75 cents to $1.00; swingle trees, $1 to $3.50; hay and straw knives, $1 to $2; axes, Collins', Hunts' and Simmons', handled $1 to $1 50; grubbing hoes, 50 cts. to $1; picks, $1 to $2; trace chains, 75 cts. to $1; budding do., $1.13; ox chains, American, 12½ cts. per lb; English do., 9 cts.; shovels, 75 cents to $1.50; Spades, do, do.; tree scrapers, 31 to 75 cents.; schuffling hoes, 25 cents to $1; churns, various patterns, $2 to $4; grafting chisels and saw, handled, $2; hoes, all patterns, 25 to 63 cts.; potato hooks, 50 cts to $1.50; do. forks, $1 37 to $2 00; garden reels, 75 cts.; sickles, 37 to 63 cts.; grass shears, $1 25 to $1.50; twig cutters, 50 cts. to $2; vine scissors, 63 cts.; pruning shears, $2; screw wrench, $1.50 to $2 00; sheep shears, 75 cts. to $1.25; strawberry forks, 37 cts.; scythe rifles, rakes, various patterns and various prices; peat knives, $1.50; ox muzzles, 31 to 50 cts. per pair; ox bows, 31 to 50 cts.; hatchets, 50 to 75 cts.; horse brushes, hammers, axe-handles, horse rockets, grindstones, rollers, crank and shafts, flower gatherers, flails, edging knives, cattle tie-chains, bull rings, butter boxes, bush hooks, caterpillar brushes, fleams, scoops, ox balls, post spoons, garden trowels, spinning-wheel heads, well wheels, oven mouths, budding knives, pruning do.

Castings of all the patterns for New-York and Peekskill plows at 3 to 4 cents per lb.

Worcester do., 5 to 6 cents per lb.

Seeds of the various kinds, for the field only; such as wheat rye, oats, barley, corn, beans, peas, and grass seeds, potatoes, beets, carrots, and parsneps. No garden seeds are kept.

Fertilizers, such as guano, poudrette, lime, plaster, bones.

Agricultural books, a complete assortment.

A liberal discount made to dealers.

A. B. ALLEN, 187 Water-street, N. Y

New-York, March, 1, 1846.—1t.

BLACK SEA WHEAT.

THIS wheat has become justly celebrated in northern New-York, and also in Vermont and Canada, having succeeeded admirably during the last ten years. It has not been found liable to rust, and the yield has in many cases much exceeded that of winter wheat. Orders for seed of this and also the Italian wheat, can be filled at the Albany Ag. Warehouse and Seed Store, 23 Dean-st. E. COMSTOCK & Co.

Feb. 1, 1846. [2]

LINNÆAN BOTANIC GARDEN AND NURSERY,

Late of WILLIAM PRINCE, deceased, Flushing, L. I., near New-York.

THE new proprietors of this ancient and celebrated *Nursery*, known as *Prince's*, and exclusively designated by the above title for nearly fifty years, offers for sale a more extensive variety of FRUIT AND ORNAMENTAL TREES, SHRUBS, VINES, PLANTS, &c., than can be found in any other nursery in the United States, and the *genuineness* of which may be depended upon; and they will unremittingly endeavor to merit the *confidence* and *patronage* of the public, by *integrity* and *liberality* in dealing, and *moderation* in charges.

Descriptive Catalogues, with directions for planting and culture, furnished *gratis*, on *post-paid* application, and orders promptly executed. WINTER & Co., Proprietors.

Flushing, L. I., Feb. 1, 1846.—2t*[2]

PATENT PREMIUM FAN-MILLS.

I. T. GRANT & Co., still continue to manufacture the celebrated, Improved Patent Fan-Mills, at the old stand, Junction, Rens. Co., N. Y. These mills have taken the *first premium* at the following places:—New-York State Fair, at the Institute, New-York, the State Fair, at Pennsylvania, and the State Fair at Maryland. The subscribers have no hesitation in saying that these mills surpass anything of the kind ever offered in market. They are the only mill that has ever been produced that will chaff and screen wheat perfectly clean in one operation.

We also manufacture *Grain Cradles* of the very best quality, which have taken the first premium at the New-York State Fair. They are for sale at factory prices, at the following places:—

A. B. Allen's, 187 Water-st., New-York;
D. L. Clawson's, 191 " "
E. Comstock & Co.'s, Albany;
H. Warren's, Troy; and
Viall & Warren's, Mechanicsville, Saratoga Co., N. Y.

All orders thankfully received and punctually attended to. All goods delivered at Troy, N. Y., free of charge.

I. T. GRANT, &Co., Junction P. O., Rens. Co., N. Y.

Feb. 1—tf [2]

POUDRETTE.

THE Lodi Manufacturing Company have on hand freshly manufactured poudrette, of the first quality, for sale in the city of New-York, at the following prices, viz:

From one to six barrels, inclusive, $2.00 per barrel.
" seven and upwards, " 1.75 "

delivered in New-York, free of cartage and other expense.

At the factory, on the Hackensack river, where vessels drawing eight feet of water may go, at the rate of $1.63 a barrel, or 35 cents per bushel.

This manure is not only the cheapest and best in use, but also is less dangerous to use than some others. Two barrels or eight bushels will manure an acre of corn. Instructions sent *gratis*, with pamphlet when required. Letters (post-paid) addressed to the Lodi Manufacturing Co., 51 Liberty-st., New-York, enclosing the money, will be immediately attended to, or it may be obtained by application at the office of the company. Feb. 1—4t [2]

THE IMPORTED HORSE CONSTERNATION

WILL serve a limited number of mares this season at his own stables at $20 each. It will be remembered that this horse was imported last June, and took the first premium at the State Fair. He boasts of an illustrious pedigree, is a beautiful brown, and has splendid action.

By Confederate, dam by Figaro, her dam by Waxy. Confederate was bred by Earl Fitzwilliam, got by Comus, by Cervantes, by Sir Peter, by High Flyer, by King Herod, by Flying Childers Figaro, got by Hap Hazard, by Sir Peter, out of Miss Harvey, by Eclipse. See Stud Book.

The owners of fine mares will find it to their interest to have them sent early to the horse. Mares sent to foal will receive every attention, at the ordinary prices for keep. C. T. ALBOT.

Stokes, Oneida Co., Feb. 1—2t.* [2]

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